

# Aviation News

McGRAW-HILL PUBLISHING COMPANY INC.

MARCH 27, 1944

## Canada Assumes Port Costs

Effect of policy on privately owned and U. S. airlines studied as important move in world aviation chess game.....Page 44

## Woodrum Asks Strong Postwar Aviation

Select Committee head declares commercial fleets must furnish the backbone of America's aviation strength.....Page 7

## Increasing Plane Hp. Gives Allies Edge

War developing into battle of blueprints, with victory likely to go to side with most advanced aeronautical engineers.....Page 20

## McCarran Bill Emphasizes Air Policy

Comprehensive measure expected to face drastic attempts at rewriting before reaching stage of final consideration.....Page 40

## PAA Plans 150-Passenger Planes

Juan T. Trippe declares post-war clippers, powered by 12,000 hp., will cruise at 280 mph, at about one-half present prices.....Page 12

## Tighter Draft May Take Air Engineers

Review of deferment cases may result in possible strain on production machinery but increased efficiency of workers may cushion loss....Page 9

## Wright Aero's Hp. Output Sets Record

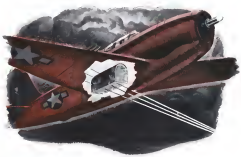
Total of 284,200,000,000 hp. produced between Pearl Harbor and January, 1944, Guy W. Vaughan, president, reveals.....Page 30

## AA, Export Present Policy Problem

Move regarded as serious blow to "chosen instrument" program advanced by Senator McCarran's aviation measure.....Page 38



**To Guide Vital Post-War Group:** Representative Clifford Woodrum (D. Va.) has been selected by bi-partisan leadership of the House to head a special committee on post-war military policy including aviation matters. Seven members each from the Military Affairs and Naval Affairs Committees and seven from the House at large will comprise the membership.



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### THE AVIATION NEWS

## Washington Observer

**THE McCARRAN BILL**—Top topic of conversation in aviation and legislative circles in Washington is the McCarran Bill for an All-American Flag airline in international transport and a re-organization of the federal aviation governing body. The airlines' policy committee is opposed, as was to be expected. *Pan American* is non-committal, for the time being, also as was expected, although it is no secret that PAA will not oppose the principles of the proposed legislation. However, there is no doubt that introduction of this bill puts further in the future consideration of the Lea Bill to amend the Civil Aeronautics Act of 1938, which if not dead in its present form was at least bedridden.

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**LEGISLATIVE ACTION**—It is too early, of course, to forecast the ultimate fate of the McCarran Bill. Its introduction, however, does serve the purpose of getting the more or less undercover tag-of-war between the 17 members of the Airlines' Policy Committee on one hand and Pan American and United on the other into the open. The sooner some settlement is made, the better for aviation generally. The McCarran Bill goes to the Senate Commerce Committee of which McCarran is a member. Senator Bailey, of North Carolina, is chairman. Other members include John C. Wallgren, of Washington, who heads the Truman Investigating Committee's subcommittee on aviation and Rex Brewster, of Maine, another firm friend of aviation. It appears at this point that McCarran's Bill will be revision in committee, but indications are that

it will retain its basic principles in the rewriting. Many chances and perhaps some concerns will be heard from before final disposition is made of this legislation and any and all comment will be closely watched by the industry generally for clues on which way we are going.

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**THE AUTHORITY STILL LIVES**—Although Sen. McCarran's new bill is being described by some writers as reviving the Civil Aeronautics Authority, actually the authority still exists legally. It is only a paper organization, however, showing up in the organization chart as the holding company for both the CAB and the Civil Aeronautics Administration. It is still correct to refer to the authority when you mean the Board and the administrator's office collectively. The old authority comprised what is now the Board; under whom was the administrator?

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**AIR RACES**—The famous Cleveland air races, abandoned several years before the war, will be revived if the enterprising crew groups of San Antonio, Tex., have their way. A Chamber of Commerce Committee is at work on the project.

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**DISTRIBUTORS' FUTURE**—There are strong indications that the automotive distributors' groups are losing interest in the post-war aviation picture. Their preliminary studies fail to include an immediate postwar market of sufficient size to justify their entry into a new field.

"Gun Instructor" with the target plane on the screen.





**Steel castings**—These steel gears are typical products of the Ampco foundry. Patterns have standard also available.

**Precision-machined parts**—Large aircraft machine parts made in Ampco's machine shop.



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## AVIATION NEWS

March 27, 1944

### CONTENTS

Washington Observer	5
Shuttle News Service	5
Air War	22
Personnel	24
Aviation Production	29
Transportation	30
Engineering	44
Business	46

### THE PHOTOS

U. S. Army Air Force	3, 12, 35, 45
U. S. Navy	17
Coastal Patrol	17
Royal Canadian Air Force	20, 21
Wright Aircraft Corp.	22
Lockheed Aircraft Corp.	23
Lockheed Aircraft Corp.	24
Lockheed Aircraft Corp.	25
Lockheed Aircraft Corp.	26

### THE STAFF

Editor	George W. Felt
Managing Editor	Robert H. Wynn
Editorial Assistant	Scott S. Smith
Editorial Assistant	John R. Smith
Editorial Assistant	John R. Smith
Editorial Assistant	John R. Smith
Editorial Assistant	John R. Smith
Editorial Assistant	John R. Smith
Editorial Assistant	John R. Smith
Editorial Assistant	John R. Smith

Publication and Executive Offices,  
100 W. 42nd St., N. Y. 18, N. Y.

Editorial Headquarters,  
1525 National Press Building,  
Washington 5, D. C.

Subscription Office, 1525 National Press Building,  
Washington 5, D. C.

Advertising Office, 1525 National Press Building,  
Washington 5, D. C.

Business Office, 1525 National Press Building,  
Washington 5, D. C.

Editorial Office, 1525 National Press Building,  
Washington 5, D. C.

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especially in light of what this expert will be unprecedented demand for sales in the same period. Meanwhile, the little-published Aviation Distributors' and Manufacturers' Association headed by Ray Snyder is quietly gaining prestige and members month by month.

**DISTRIBUTORS' BUSINESS AT PEAK**—Although the average citizen believes civil aviation is a casualty of the war, the aviation distributors and servicemen still in business are doing a dollar volume on accessories parts and supplies well above pre-war figures. The wartime change-over of companies like Air Associates to emphasis on manufacturing, and the exit of the smallest firms in the field are factors.

**NEGLECTED GROUP**—Assessment of the National Aeronautics Association of a program to serve "consumers of aviation products and services" recalls the observation of an airline official recently that this was the neglected group of aviation. The thought was that private pilots have the AOPA, manufacturers the Aeronautical Chamber, the airlines their own Air Transport Association, and there is Air Corps Inc. for the dippers. Fixed base operators have their group and the state aviation officials and the airport managers have theirs. Many of these menaces may fall into the consumer group, but not all consumers fall into one of these categories, and that is where the NAA says they come in.

**CONTRACT TERMINATION**—Tremendous figures are being bandied about in the endless wrangles and discussions on contract terminations. The latest to date and at 15 billion the value of contracts terminated. While this is a staggering amount, it should not be overlooked that many of the contracts involved are in the 1945 and 1946 picture and do not affect current output, don't relieve labor for other work nor change the current situation.

More speed and greater range in these suspended Liberators—no camouflage



## Washington Observer

**REQUIREMENTS OF ARMED FORCES**—It becomes increasingly apparent in Washington and undoubtedly elsewhere—that there should be some review of the requirements of the armed forces. This thought is occupying the attention of some leading officials. In this connection, there is an desire to show on the needs of the armed forces—as the other hand the general feeling is that they should have too much but, as one high official expressed it, "not too much too much." There is sentiment for a review and more undoubtedly will be heard on this subject soon. Those who have examined the prospective requirements of the armed forces for the next fiscal year and beyond say there is no indication of a reduction.

**RECRUITING WOMEN**—It was observed here last week that the WACS, among other women's service organizations, were conducting an intensive recruiting campaign while at the same time there was in progress another campaign to get women into vital war production work and there appeared a need for coordination. To keep the record straight, it should now be noted that the War Relocation Administration, the War and Navy Departments, and the Office of War Information have agreed on a joint policy designed to coordinate efforts to recruit women for the armed forces and civilian activities.

**WORLD'S FASTEST PLANE**—If you want to believe everything, there are now four reliable airplanes—each the fastest in the world. Most recent claim is for the North American P-51 "Mustang." Several enthusiastic Army representatives have made the same claim for Lockheed's P-38 "Lightning." Not long ago, the Suffolk Army Air Base on Long Island, a group of aviation writers were informed that Republic's P-47 "Thunderbolt" was fastest. The de Havilland Co. has made the fastest in-the-world claim for its "Hercules." Washington insiders repeat that the "Mustang" is the fastest, however.



losses in planes and crews must be replaced when the war ends.

Production facilities and aviation research particularly must be kept at almost wartime tempo, in his view, and he contends that programs thought to have been some source of Congressional "embodiment" so that research in this and other fields will not be dependent on the pains and valleys of annual appropriations.

While the select committee will not write legislation to implement the studies it will conduct, the fact that it will include seven members of the Military Affairs Committee, seven from the Naval Affairs Committee and seven from the general House membership will provide emphasis on the Appropriations Committee will provide the foundation for such legislation emanating from these committees. It, in effect, constitutes a unified command in Congress, and Woodruff says the question of a military studies command will be one of the major considerations of the committee.

**Post-War Air Corps**—He has a futuristic perspective gained from his experience in Congress in that he first entered the House in 1933 in the period following the World War when military appropriations were being ruthlessly slashed, with the consequent opportunity to study the results over a period of years through his service on the Appropriations Committee. His son, Major Clifton A. Woodruff, Jr., 37, is attached to the Douglas Douglas Corp. and participated in Gilbert and Marshall operations.

He feels that this country must build and maintain a strong pool of men to furnish a constant pool for the combat forces so that in the event of another war thousands of young and well-trained pilots will need only refresher courses to fit them for combat flying.

**Commercial Market**—"We have had to turn out pilots as fast as we turn out planes," he says today, "and that is wrong, they need more training."

That the aviation program after the war is not solely that of the armed forces, in his opinion, is indicated by his remarks that the plane manufacturer must help maintain interest in aviation to develop markets for planes, and he indicates that the extent of the support to be given the government to interest the youth of the country in the air will be one of the primary considerations of the committee. In this field, he feels that the high schools and colleges will play a large role.



Newspaper's illustration of DC-7: Los Angeles Times appeared with this drawing of the proposed Douglas DC-7, including a possible seating plan for the proposed post-war super airliner.

## WEST COAST REPORT

### Douglas DC-7 Publicity Breaks

Los Angeles newspaper sketches post-war transport after Brenell was drawing it.

Although several specifications for Donald Douglas' post-war DC-7 were given the industry in Aviation News (Washington Observer) Jan. 10, and articles had received from the aircraft manufacturer a detailed description in brochure form, the Douglas Co.'s Public Relations Department used every influence to forestall a public announcement. The hubbub of "military restriction" was flouted when necessary. The company hoped to herald its four-engine 4,000-mile, 16-passenger plane in a "general" publicity release.

**Show in Brief** Adm.—When Brenell Airways produced an advertisement last month a profile drawing of what obviously was the DC-7 Douglas publicity man reminded all who inquired that no army release of restrictions had been granted.

Then Marvin Miles, aviation editor of the Los Angeles Times published on May 17 an article's sketch of the DC-7 and proposed seating arrangements.

**Douglas Reaction**—Douglas publicity men that were furious, then silently but warily awaiting press

calls and telegrams demanding stories for publication from England to Australia. Other western factories of once fearful of Army representations an announcement of their own post-war planes, may now cite the Miles story as precedent.

Miles merely asked the Army's Public Relations Office if there would be a violation of military restrictions if he described the plane Douglas will build after the war. Army replied that description of a commercial design was of no concern to them so long as it did not imply military adaptability.

**Bank Fines**—Finance pressure of major airline divisions of their domain, Alaska's famed "wild points" zone may have legal counsel in Washington to protect their charter rights over routes they have pioneered. A definite move to arrange as "Alaska Bush Operators" is under way. The agreement also will serve as a purchasing and insurance agency.

Opening of a helicopter course at University of Southern California (Los Angeles) indicates western interest in rotating wing research. West Coast "copter builders" who hoped to be in the air the first of the post war still are at work on engineering wings.

They interest sharpened by proximity to the Pacific will want observers note development of a "bottle of weight" as Japan and the United Nations redesign fighter planes to attain optimum efficiency.

## Aviation Calendar

- Mar. 31 Ags. 1—Aviation Festival, Greater Youth Union, Greater St. Louis, Missouri.
- Mar. 14-16—Greater Minn. Youth Safety Council, annual conference, Grand Rapids, Minn.
- Apr. 1-2—AAE National Association Meeting, Hotel New York, New York.
- Apr. 31—East and West Coast Aircraft War Production Council, joint meeting, Los Angeles.
- Apr. 31-30—Midwest Light Aircraft Meeting and Day of Aeronautical Science, Detroit.
- Apr. 29-30—Southeast Aircraft and Aeronautics Convention, Dallas.
- May 1-14—North Dakota Airport Planning Conference, Bismarck.
- May 1-7—Natl. Natl. Aircraft Engineering and Production Council, Los Angeles.
- May 1-4—AAE National Air Corps Meeting, Chicago.

Reports from the Pacific note Japan's addition of armor and probable cessation of a degree of night glider performance, greater combat durability. At the same time the success of Britain's lightweight Mosquito and Lockheed's lightweight carrier-carrying Lightning may have a strong influence on future American designs.

### Drafted NACA Men To Stay on Job

Disbelief that the President has approved a special plan to allow the National Advisory Committee for Aeronautics to retain or reacquire technicians necessary to carry out its crucial war work was made by John P. Victory, NACA secretary, in an address to members of the press.

The plan provides that essential, draft-eligible employees be inducted as usual. If they go into the Army, for example, they would be assigned to the Air Corps Civilian Reserve to continue their essential civilian duties. It provides further, that men now in the Army will be similarly assigned to laboratory duties to the extent necessary, and as in kind as necessary or until replacements have been obtained at which time they may be called to active military duty.

**NACA Men Not Examples**—The philosophy of the plan is that men of draft age, conscripted to the Army and Navy in the vital work of NACA shall serve where the Army, the Navy and the Commander-in-Chief determine they can serve best. Victory explained, "It should be emphasized that under this plan NACA personnel are not conscripted into military service, but rather are inducted into it and are asked to call to active military duty."

## Tightening of Draft Expected To Tap Off Vital Plane Engineers

Review of deferment cases may result in possible strain on production machinery but stepped up efficiency of workers is likely to cushion loss of key personnel to substantial extent.

By SCOTT HERSHEY

The manpower tap-off-war which has been going on in Washington resolved itself into a typical Washington deadlock which called for the usual treatment of such situations—a final determination by the White House.

However the new Selective Service deferment develops, it appears that the aircraft industry is going to lose some of its younger men now considered essential. It appears further, that the industry is simply going to have to go ahead and build as many airplanes as possible with available personnel, regardless of the departure of men now regarded as vital to scheduling.

**Production Brake**—There are strong indications of a brake on production ahead, although to what extent was problematical and to what extent removal methods will make that looking around to be seen.

The struggle in Washington resolved a number of factors and a question of degree. There was a question as to whether the War Relocation Commission or the present officers of the Army and Navy should determine deferments.

**Under the New Selective Service** program, whether Selective Service should take whatever men necessary to meet their quotas, despite the effect on production, and finally the viewpoint of the War Production Board regarding the effect on production schedule of the drafting of young men who hold important technical positions in many war industries and particularly in aviation.

**Demands Clash**—The great demand of the armed forces for young men for important events to come and the need for some of these same young men to provide the implementation of war necessities to carry out the role of the armed forces in those important events, met head on. It was a difficult line of division to draw.

For example, engineers in the aircraft engine manufacturing industry under 34, exclusive of 40%, represent 21.4 percent of the industry's engineering manpower.

**Survey Made**—A letter containing this information, together with a report of a survey of engineering manpower, has been sent to Gen. H. H. Arnold, commanding general, AAF, Vice-Admiral John S. Mac-



### BOEING-WICHITA STRATO LABORATORY:

This Strato Chamber at Boeing-Wichita can be made to represent conditions inside and outside a bomber in flight, an action being the interior of the plane cabin and the other the outside. It is being used to test Boeing Superfortress equipment. It is 37 feet long with an outside diameter of nine feet.



# PAA Chief Says Line Will Operate 150-Passenger Craft After the War

John T. Tripple declares clippers, powered by 12,000 hp., will cruise at 280 mph., at half pre-war rates.

By SCHORER RANGS

Pan American Airways' President John Terry Tripple three weeks open in Los Angeles last week the door heretofore closed against post-war flying. The big planes American builders will offer for post-war global commerce.

At the University of California's Los Angeles campus, receiving his third doctor of laws honorary degree, Tripple said:

"With our new post-war clippers we will be even better. The horsepower of these new flying clippers will be not 8,000 but 12,000. They will carry not 24 passengers but 150. They will fly not 160 mph. but at twice that speed—280 mph. They will carry passengers at less than half the old rates. And, best of all, the new clippers will have as their most honored and distinguished passenger Mr. Average Citizen, enjoying at a cost appreciable to his pocketbook, facilities of travel unimagined of ten years ago."

▶ **Plane Projected**—What Tripple didn't say in his speech was told to AVIATION NEWS exclusively by Frank Glidhill, PAA vice-president and chief of purchases.

The plane Tripple described is definitely under production by a West Coast factory and will be bought by Pan American for the imminent commercial production is authorized.

While Glidhill would not disclose the identity of the manufacturer, Tripple's speech came as reports circulated that Boeing Aircraft Co. in Seattle has under way plans for a large post-war plane that may be introduced as the Boeing Super-Stratoliner trans-oceanic clipper. Whether this plane will be "the" plane Pan American contemplates buying or whether it is being designed, and so labeled, as an inducement for renewal of Boeing-Pan American relations that prior to the war resulted in Boeing's manufacture of the Boeing Clipper flying boats for Pan American remains to be seen.

▶ **Lockheed Program**—That Lockheed Aircraft Corp. has on the boards a post-war design far larger than the C-48 Constellation might indicate Pan American interest

in research as Pan American maintains a resident engineer at Lockheed, and President Tripple's first business on arriving in Los Angeles was a visit to the Lockheed plant and luncheon with Constellation S. Grant, vice-president and brother of Robert S. Grant, Lockheed president.

At the Douglas factory, representatives and the proposed DC-7, recently described in news stories, while designed to carry 30 passengers and 20,000 pounds of cargo might be altered to carry 150 passengers and a moderate amount of cargo.

▶ **Commerce Program**—Larger than Pan American's post-war plane is that contemplated by Consolidated Vultee Aircraft Corp., which is planned to carry from 200 to 250 passengers.

Military restrictions and a War Dept. unwillingness to have major factories talk about post-war plans and plans while concentrating on war production have restricted.



CAMERA RECORDS COMBAT:

Two electrically operated movie camera control recorder for AAF fighting planes starts when the guns are fired, recording shooting accuracy. Known as the gunshot camera camera, shown here on a P-38 at Wright Field, it is equipped with an optical system which shoots not only the target, but the sighting apparatus used and records both on each frame of film.

heretofore, factory announcements concerning their plans.

It is apparent on the West Coast, however, that "they plant" plans will not offer existing plans to go ahead with the development of smaller domestic route types that will carry from 50 to 100 passengers.

▶ **U. S. Policy Forum**—Aside from War Dept. forums, a forum raising airplane builders to be cautious in announcing post-war plans has been the failure of the United States government to come out with a definite air transport policy.

Tripple alluded to this emphatically, saying: "In this air age we should use any means just as determined as we are to bring the advantage of air travel and air transport commerce to the service of our citizens. They have shown this determination by the adoption of clear-cut national policies regarding commercial air transportation. All of the great trading nations, and the United States, have already developed such a national policy. Our nation, too, must have a national air transport policy—appropriate to our position among the nations—and America cannot afford to let the creation of that policy wait until peace comes."

## Congress Gets More Reconversion Bills

Industrial demobilization programs continue to keep capital in state of confusion.

As proposals and counter-proposals for industrial demobilization piled up in the House and Senate last week, confusion and indecision, compounded different measures, and moved in various directions. There was no unification of purpose and, as far as could be seen, no agreement between any two groups.

▶ **Up to Congress**—Meanwhile, the administrative agencies proceeded to apply the Bush plan and organizations gradually took shape along the line, although all government reconversion leaders were fully aware that Congress could pass virtually any one of the score that a score of bills on hand and destroy these rapidly growing organizations.

Walter L. Clayton, Surplus Property Administrator under the executive order implementing the Bush plan, and John M. Hancock, chairman of the Joint Contract Termination Board, were both active during the week, not only de-

veloping their organizations but also appearing frequently at Congressional committee hearings where they sought to defend what they were doing.

▶ **Developments of Week**—The War Contracts Subcommittee of Senate Committee on Military Affairs opened attack on the uniform termination article devised by Bernard M. Baruch and John M. Hancock several months ago. "The scope of the uniform termination clause is quite modest," the committee reported.

The committee's approach to the problem of subcontractors: It does not deal with cost-plus-fixed-fee contracts. It does not clarify the role of the general contracting office. It does not establish a suitable program for advance notice, removal of materials from plants, or for internal financing. It does not attempt to deal with appeals: the handling of informal, defective, or quasi contracts, the type of records that should be kept, the development of appropriate statistics on contract termination; the duration and preservation of funds; and many other related matters. Obviously the Murray Committee does not care for the Baruch termination clause.

▶ **Surplus Property**—With regard to surplus property, the Murray Committee suggested that the sponsors of a major surplus property measure now before Congress collaborate in working out over-all surplus legislation. Subsequently, the subcommittee continued, specific bills can be drafted on special phases of the surplus property problem.

Administrative officials, anxious for something permanent and something definite with which to work, were quick to shove that the reconversion only in the submission of more legislative proposals when there was no agreement on the doors already submitted.

▶ **Hancock Digs Set**—The Senate Military Affairs Committee unanimously announced that it would open hearings April 4 on the George Murray Bill covering all phases of industrial demobilization, despite the fact that no agreement had yet been reached on whether or not title III of the bill—which deals with contract termination alone—would be handled separately. Rep. Vreeland, chairman of the House Naval Affairs Committee, added a personal note to a conference between the War Department to the Navy to the happen a measure which would terminate Navy De-

## BRIEFING

Aeros Air Fleet, an "approaching complex to supremacy is practically every theater in which they are operating at a much faster pace than the Army had dared hope" and air combat losses have been considerably less than was expected, Gen. Arnold noted. About 34,000 ground and service personnel worked for Army training and will be returned to their original branches and enlisted as 37-year-olds in the air corps enlisted reserve has been temporarily suspended.

Navy's contract with American Aviation Corp., Jacksonville, N. Y., for a special type, twin-engine plane was canceled because of changing fleet requirements.

Shoppers of Northwest Airlines common stock will be offered an additional share for every two shares held in a proposed additional offering of 117,460 shares.

A House Committee approved a bill to give smaller Army contractors to War Dept. Gen. Arnold said the AAF hopes to start "to have every major Army type out of the U. S. and overseas fighting."

Trans-Canada Air Lines has surveyed international routes to West Indies and South America, unimpaired post-war service.

Printhead is looking up on its C-48 cargo plane at Baginston, Md.

patron contracts separately from others while Rep. Kefauver said he was preparing to introduce a bill which would parallel the George Murray Bill.

Other legislative proposals were on the way John M. Hancock, during one of several appearances before the Senate Committee on the House, asserted that he needed only two weeks in which to present a termination bill that would have approval of all present agencies as well as Mr. Baruch.

▶ **Dispute**—Despite the almost hopeless situation which now exists, Congress is expected to demand its actions vigorously. This was indicated in the recent George Subcommittee report which acknowledged that on the subject of property disposal alone there "are about 30 bills being introduced by at least ten Congressional committees."

## Surplus Property Policy Board Meets

Deliberations have been started by the Surplus Property Policy Board on which T. Welch Page, chairman of the Congressional Board, is sitting on aviation representatives. Further legislation is being speeded in Congress to implement the executive order under which the surplus board is now constituted and is not expected to change the existing concept.

It is generally expected that the CAB will handle the civilian mechanics of surplus plane distribution, and the recent transfer for surplus C-47s returned to the Board is getting directives giving these officers more latitude in working limitation rules applying to use of that type by government agencies familiar with the field.

▶ **Other Groups Represented**—Although CAB was not listed in the original Baruch-Hancock report for membership on the surplus board, such provision was made in the executive order setting up the board, and the selection of Page followed.

Other members of the board represent the following departments: War, Navy, Treasury, RFC, Maritime Commission, WPB, Bureau of the Budget, Food Administration, Attorney General, Federal Works Agency, State Department, and Foreign Economic Administration.

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## WPB Gets Surplus Property Report

Expected to shift some excess plane materials back to civilian production.

The report of Will Clayton, Surplus Property Administrator designated under the Baruch-Hancock plan to speed disposition of surplus materials, has been given to the War Production Administration Board. Discussions of the report are scheduled for immediate action.

The report—a highly confidential document—will establish limits under which surplus materials could be disposed of, if they are learned. It also advocates granting of greater latitude to contract officers in authorizing action in borderline cases. In this connection, it also has been learned that regional offices of the War Production Board are getting directives giving these officers more latitude in working limitation rules applying to use

of surplus materials for other than war production.

**Picture Changing**—The entire Washington picture appears to be changing from one of strict controls to one in which the rule of reason will be applicable to disposal of surplus materials and to civilian production where the war effort probably will not be directly affected.

Indications of this trend are seen in the recent request of the WPB to aircraft manufacturers for suggestions of surplus inventory and control warehousing of the materials for redistribution, and also in the fact that the plan to permit small plants—employing fewer than 50 men—to make any product they can with surplus materials has been revised and has a chance of being approved.

## Rise in Equipment Utilization Shown

Plane use increases from daily average of 6 hr., 25 min. in 1941 to almost 12 hr. for some lines last year.

Increase in equipment utilization has been one of the airlines' outstanding accomplishments. Part of it may be attributed directly to war necessity when some of their planes were withdrawn by the Army, early in 1943, but new figures by Civil Aeronautics Board researchers show that this was the trend even before that time.

For day utilization of planes for the 48 airlines carrying passengers in the United States rose from 8 hours, 27 minutes in 1941 to 9 hours, 27 minutes in 1943. These are national averages. Individually, by, some of the yearly averages ran almost to 12 hours in 1943, whereas in 1941 the highest was slightly over 8 hours.

**Utilization**—Compilation shows utilization for each line for the fiscal year ending June 30, figured on a per-day average for the 12-month period.

### Figures in hours and minutes:

	1941	1942	1943
American	8:29	9:14	9:49
Boeing	8:29	9:14	9:49
Chrysler and			
Continental	8:50	9:14	9:49
Continental	8:50	9:14	9:49
Delta	8:50	9:14	9:49
Eastern	8:50	9:14	9:49
Northwest	8:50	9:14	9:49
Southwest	8:50	9:14	9:49
Transcontinental	8:50	9:14	9:49
United	8:50	9:14	9:49
Western	8:50	9:14	9:49

## Canada Announces New Airline Policy

Howe statement would affect Canadian Pacific, new Air Transport Board suggested

With Canada's two main airlines now owned by surface carriers, official announcement that the Dominion's new domestic air policy would include divestment of surface ownership in any airline within a year after the European phase of the war ends came as a surprise.

Since government-owned Trans-Canada Air Lines has been operated by government-owned Canadian National Railway, some observers feel their practical relationship may not be changed even if the new policy alters their nominal connection.

Canadian Pacific Railway, on the other hand, has bought existing airlines throughout Canada to form Canadian Pacific Airlines, and the order may be expected to have a more stringent effect in divorcing those two interests.

The government previously made it clear that no privately owned Canadian airline would operate automatically after the war. The new plan thus gives Canadian Pacific another worry.

**Howe Outlines Policy**—Divestment of surface ownership, moreover, was only one phase of the domestic policy outlined by C. D. Howe, Minister and Supply Minister, in the House of Commons at Ottawa. Other features include establishment of a Canadian Air Transport Board and retention of new air routes for restaurant service. Establishment of such a Board separate from the Board of Transport Commissioners was urged by the Air Industries and Transport Association in convention at Toronto last November.

In connection with the proposed step to require Canadian railways to divest themselves of ownership of airlines, Howe commented that the kind of corporation which had characterized railway operation in Canada was ending aviation.

**Howe Rail Air Monopoly**—He said the government had decided that the railways "shall not exercise any monopoly of air services" in the Dominion. Declaring that within a year from the end of the war its Europe air transport would be "entirely separate from surface transportation," he defined the latter as including railways, shipping companies, and highway transport

companies. No new air routes other than government-operated routes, he asserted, will be allocated to airlines owned by any surface transportation operator.

The government has decided that first chance at any new air routes in Canada should go to returning service men. "Our returning aviators will not be satisfied in entering this new field of employment, to serve only as salaried employees," Minister Howe stated. "In this new medium of transportation there must be a place reserved for small business." He pointed out that partially all existing air routes, except TCA, were powered by small business men.

**Air Transport Board**—The Air Transport Board which the Canadian government plans to set up will examine needs for new commercial services and make recommendations for their expansion in domestic and international fields, receive applications and issue commercial licenses, establish tariffs and regulate rates, examine ownership, financial structure and operations of air carriers, recommend financial assistance where needed, advise on operations of existing and need for new airfields, and be authorized to handle allied duties. Date when it will be established was not announced.

The new policy was discussed soon after Minister Howe's information to the House of Commons that the Canadian government is paying the United States \$54,000,000 for improvements made by the United States for its wartime needs on the airway through Canada to Alaska and for flight stops along the Alaska Highway and the Mackenzie River air route to the Arctic. Canada now will own the entire airway to Alaska, now operated through the Royal Canadian Air Force.

In scrutinizing for the post-war use of the Northwest Staging Route (official name of the Alaska airway) the government will pursue a liberal policy of co-operation with other nations," said Mr. Howe. "We hope the right to use the route will become part of a general scheme of international co-operation in air transport matters, which will provide greater freedom of movement of aircraft and of air traffic, within a suitable international framework."

**Built in 1941**—The Alaska airway was built by Canada in 1941 as part of the Canada-United States Joint Defense Board undertakings.



**reverse thrust  
puts brakes on  
blimps**

The ease of handling achieved in the Navy's new blimp, largest ever rigid type ever built, opens the way to the versatility of the Curtiss Electric.

This new application of fully controllable reversible propellers to lighter-than-air craft provides many advantages. Reverse thrust allows a smaller crew to take and leave the new blimp when, relieved of fuel and bomb loads, they must be flown down in light conditions.

The controllable feature contributes to faster take-off when the blimp, heavily loaded, depend on dynamic lift to leave the ground, and in addition increases the range through reduced fuel consumption.

**CURTISS**  
ELECTRIC PROPELLERS

*Curtiss-Wright Engine Co., Inc., Propeller Division*





# LOST...and found

For many an Air Transport Command Flier—the few moments before “ditching” may very well be the most precious moments in the lives of the crew. For these are the moments in which “Sparks” can radio his position to a rescue ship.

• Ferrying airplanes, as well as fighting them, has been made less hazardous to this network of radio intercommunication that runs from plane to plane, from plane to base—and so vitally around the world.

• But what, besides radio, makes aircraft radio intercommunication possible? The shuffling of the quatern system to prevent interference by high frequency quatern currents.

• The role of the Teflex quatern harness in this work is universally known. It is perhaps and quite as universally known that

Teflex Radio Shielded Ignition Harnesses are standard equipment on the majority of American war planes. This may very well be attributed to Teflex' rigid standard-of-design, manufacture, and inspection. But for Teflex, it is merely an aspiration to more and more research.

• When the “super-planes” will write the final chapters in the war and give way to the commercial planes that will write the first chapters in the peace, Teflex, hopes to play its part.

• If you have any engineering problems involving others, you are invited to consult the Teflex research staff now.

**TITEFLEX, INC.**  
506 Freshington Ave., Newark 2, New Jersey



## 2,000 French Pilots Training in U. S.

Many of youths in air schools have escaped from occupied areas to continue fight against Axis.

Some 2,000 Frenchmen, many of whom have escaped from Occupied France, are being trained in 39 U. S. Army Air Force schools throughout the southwest. The students are receiving training as pilots, gunners, bombardiers, navigators, mechanics, armers, and photographers by U. S. instructors with U. S. equipment.

Col. A. de Pombe d'Amecourt, of the French Army, is in charge of the program. The "Centre Formation Personnel Navigateur en Armement & Mécanisme Breveté" which is called CPNBA & M and supplies the pilots and mechanics being trained in this country. Col. d'Amecourt is attached to the Air Museum in Washington which is principally concerned with training, procurement and civil aviation for France.

• **Basic Training**—Although the training program is nine months old, few of the airmen have gone overseas. They are receiving primary, basic, advanced and operational training, principally on B-26's and P-47's. No final decision has been reached on whether the French airmen will fly as a unit or will be integrated into American and British squadrons.

• **Stance in Canada and Russia**—In addition to the French airmen trained in this country, a number are being trained by the Royal Air Force in Canada to fly with the RAF when they complete training.

Another group of French fliers was trained by the Russians and are flying with the Russian Air Force as the Squadron Normandie.

French, accommodated under arms in northern South America, handle two and local operations in the colony, and house aviation schools, aerial survey craft and private planes.

Plains call for runways 3,000 feet long and 150 feet wide, and taxiways 70 feet wide, but built to bear aircraft of 100 tons.

## Ex-CAA Officials In Service Listed

Civil Aeronautics Administration has compiled a list of former officials and employees from Washington headquarters to show their present whereabouts with the armed forces.

Mr. Gen. Donald H. Cosslett, administrator, heads the Persian Gulf Service Command, through which material is channeled to Russia. A. S. Koth, deputy administrator, lieutenant colonel with the Air Transport Command in Washington.

Some 100 aerial engineers in Canada on the CAA aircraft program in Washington at the time of the attack on Pearl Harbor. Some 100 aerial engineers in Canada on the CAA aircraft program in Washington at the time of the attack on Pearl Harbor.



**SKELETON OF A B-24 LIBERATOR**  
Starting as a mere skeleton, Consolidated Vultee's B-24 Liberator becomes a mass of wires, tubes and controls as it nears the end of the line. The next operation is to enclose the flight deck with the outer panels. This flight deck is completely assembled and is then mated in a major assembly jig to the outer panels of the nose section. This major assembly is then moved onto the final assembly line.



LEADING THE WAY TO VICTORY IN THE AIR—

# FLYING HORSEPOWER

TODAY, FLYING HORSEPOWER  
IS 100% WAR POWER!

But think what this kind of  
performance will mean in Peace!

**ALREADY** tests have shown that a re-engineered propeller, using new synthetic "boosted" by "Flying Horsepower," has achieved amazing performance records over the same plane using 100-octane gasoline. Here are several comparisons.

**TAKEOFF:** The transport can leave the ground in less than 1,800 feet, compared to 3,000 feet with 100-octane gasoline in the fuel tank.

**CLIMB:** The plane can climb over 1,800 feet per minute, compared with 1,400 feet per minute with 100-octane gasoline.

**CRUISE:** The plane's climb to 34,000 feet, compared to a ceiling of 28,000 with 100-octane gasoline.

**LOAD:** The plane can carry a payload of over 8,000 pounds. This compares with only 7,000 pounds with 100-octane gasoline.

## ...FUEL OF THE FUTURE

A SENSATIONAL new superfuel, "Flying Horsepower," is providing new power ingredients for America's 100-octane aviation gasolines...boosting the performance of U.S. planes.

This greatest gasoline news of the war is the result of development after development by Socony-Vacuum in Catalytic Cracking. It's the product of 11 years pioneering work...a \$90,000,000 investment in new refining equipment and facilities...the greatest Catalytic Cracking program in the world.

No "dream," no fantastic promise, "Flying Horsepower" is a war-proved reality. Today, Socony-Vacuum is producing enough of this new superfuel every day to provide 100-octane gasoline for 1,200 4-engine bombers flying from England to Germany and return.

After Victory, this "fuel of the future" will power the mightiest air fleets the world has ever known—

## FOR TOMORROW'S PEACETIME PLANES!

America's commercial planes. For Socony-Vacuum refineries are ready—the day after all military needs have been met—to start producing for the peacetime requirements of the aviation industry.

Watch for announcements of "Flying Horsepower" in new Mobilgas for aircraft!

### NEW SUPER AVIATION OIL HELPS KEEP ENGINES CLEAN!

During recent 18-year laboratory experience, Socony-Vacuum has developed a new super Mobiloil Aero for aircraft use, to serve as a running-oil for the new Mobilgas 100-octane fighter covering thousands of air hours. This new oil has proved its exceptional wear-resisting qualities. The outstanding feature is its resistance to clogging deposits.

SOCONY VACUUM OIL COMPANY, INC.  
26 Broadway, N. Y. C. and Airfield, Mayfield,  
Franklin, Ca. General Petroleum Corp., ST. LOUIS



Get the Facts on **Mobilgas - Mobiloil Aero**

## COMMENTARY

## Increasing Hp. of Plane Motors Gives Allies Edge in Air War

World conflict developing into battle of blue prints with rewards of victory likely to go to side with most advanced aeronautical engineers.

Recent announcement of a new Mark pointed-wing Spitfire (latest announced is Mark IX) as new in operation, powered by the new Rolls-Royce "Griffon" engine, is a reminder that this war will be won by power. Back of the famous air battles over vital targets in Germany, long-range bomber missions over land and sea, the indispensable reconnaissance and patrol flights, the split-second timing of troop carrier operations, and worldwide air transport schedules, is the need of higher horsepower, even greater reliability of performance, and muscle-working maintenance and service to keep all of

this power constantly on the move. This is the battle of the blueprint, the engine laboratories and research facilities, without which the battles which make the headlines cannot be won. The nation with the most efficient aircraft engines, the largest number of them, and the best maintenance service will strike a heavy blow for victory in the war, and be in a position of leadership during the post-war years. Thus applies to jet-propulsion as well as conventional engine types.

► **Wings For The Line.**—Very little has been released about the new Rolls-Royce engine, but that little

is full of interest. The Griffon (or Griffon) was a half-ton, half-inch in Greek mythology, which follows a trend in the nomenclature of British engines. E. G. Rolls-Royce "Merlin" (English mythology), Bristol "Hercules," and "Cometurs," etc. The new engine has been called a masterpiece of mechanism, and a marvel of compactness, with dimensions and cylinder arrangement (the same as the 10-year old Merlin 60-hp V-type, twelve cylinders, 1947 cc in displacement). A British broadcast to the continent on May 9 stated that "its twelve cylinders have a volume which surpasses by over 20 percent the power of the Merlin engine in the present Spitfire."

This is substantially the same engine which powers the Mustang (P-51C), rated at 1,400 hp, with a top efficiency of 1,520 hp. This would give the Griffon a horsepower of 1,530-1,700 hp, with development possibilities of 2,000 hp or better, which would put it in the same bracket as the latest in the Daimler-Benz series, the DB-603. This is the only engine which has a power-plant of the current ME-109 fighter, the 108G (latest sub-series), the twin-engine ME-410, a new version of the Focke-Wulf 190, and the newest in the JU-88 series, the 304 high speed fighter-bomber. The main Daimler-Benz plant is (or maybe was) in Stuttgart, a city which has been the subject of terrific air attacks by the RAF and AAF recently, with another factory in Berlin, also probably heavily damaged early this month. As successor to the 11-year old DB-600-601-603 series, cropping its production has been a top-priority objective.

► **Large Liquid-Cooled Engines.**—First reports of the Griffon development, some five years ago, referred to it as a 16-cylinder V-type in the 1,800 hp class. It may be that development work is going forward on an engine of this type in Britain. Similar reports were then current of an advanced Daimler-Benz design of this type (inverted V) as the other DB engines, and since the start of the war of similar 16-cylinder experimental models by Ford and Chrysler. Nothing has been heard of any of these jobs for some time, but that does not necessarily mean they have been side-tracked.

As the demand continues for heavier protective armor, heavier machine guns and cannons, with more ammunition, faster speed, improved climb and longer range (all

this is figured), the need for more powerful engines also will continue. In the case of bombers this need appears to be met in the swing away (in British practice) from liquid-cooled engines to air-cooled models of higher horsepower. For example, the switch from four 1,200 hp Merlins to 1,630 hp Hercules engines in the Lancaster II, and more recently in the Halifax III, has stepped up the power of the RAF bomber from 5,000 hp in 5,500, or over 30 percent.

► **Double or Nothing.**—This was literally true of the first two of the attempts to join two 12-cylinder V-type engines to make one 24-cylinder X-shaped engine. These were the Rolls-Royce Vulture (two Merlins) and the Daimler-Benz DB-606 (two 601's). The Vulture powered the two-engine Arco-Memphis bomber (successor to the 1940 by Lockheed), and the Hawker Tempest fighter. Owing to various difficulties, the engine was reported to be withdrawn from production. The DB-606 proved a definite flop in the only flight test of the Heinkel 177, a five-year heavy bomber hardly yet out of its growing pains, now reportedly powered by two DB-603's (two 605's power), and in limited production.

► **Successful 24's.**—The 24-cylinder horizontal H-shaped engine "Sabre" was designed in 1935 and first announced in April, 1941 as the world's most powerful aircraft engine at 3,200 hp, for 14,000 ft. It is air-cooled, with multiphase instead of the usual poppet valves. Its dry weight of 2,300 pounds gives it a satisfactory w/h ratio of 1.97. After the usual elation of production and operational tests, the engine has turned out a rather poor record in the powerful high-altitude fighter or fighter-bomber, although it evidently failed to live up to its experiences in the high altitude field in the type has not functioned at the high levels originally projected. It is possible that this is being corrected in later models. Another 24-cylinder success story is as far as the engine is concerned (not answered) as yet in a particular aircraft is the double Allison V-320, of which no details appear currently reliable. This is another example of the time required to develop a high-powered engine. One, as the Wright-developed large aluminum cylinder head, and the other is the P & W-developed water-injection process. Both developments were under the continuous direction of AAF



## SCRAP AIDS CADETS:

To aid mechanics at Royal Canadian Air Force training school in Quebec, the RCAF is building engines with cademy sections to show mechanics how the engine works. The cademy engines are made of parts which are no longer to be used for production engines, and which would ordinarily be sold as scrap.

some years. In December, 1940, at an engineering convention in Philadelphia, Dr. J. C. Hunsaker of MIT announced that in the possession of a production engine of 3,200 hp, this country held a precious asset in the military aviation field. He referred to the Pratt & Whitney 18-cylinder double Wasp (R-2800), which during the next three years was to give the highest quality production at P & W, Ford, Nash and Chevrolet, for Cessna, Helmer, Thundersbolt, Mustang, Venture and Corsair. The famous Wright duplex Cyclone (R-3350) had already carried the Consolidated model 31 B-24E based on its test flights, and a few months later the Douglas B-24. This engine has since been improved and rated at 3,200 hp, powering the Martin Mars, Lockheed Constellation and Boeing Superfortress. It is now in production at a new Wright mechanical plant and scheduled for high quantity production at the huge Dodge factory near Chicago.

Among many others, two highly important technical improvements will result in increased power ratings for these two great engines. One is the Wright-developed large aluminum cylinder head, and the other is the P & W-developed water-injection process. Both developments were under the continuous direction of AAF

(Wright Field) and Navy Bureau engineering officers. In the same class, but apparently not so far along, are Britain's 18-cylinder Bristol "Cometurs" and Germany's 18-cylinder DB-603, advanced version of the excellent DB-601 which has crupt up from 1,350 to over 1,700 hp. It appears now as if the stream of German engineering will brown out the 1932 before it appears in action.

NAVIGATOR

## Radio Jeep Guides Landing Planes

A "radio jeep" is one of the newest innovations of this veritable vehicle, at an Air Service Command base in the Mediterranean area, according to a report received at AEC headquarters, Patterson Field.

Designed for use in directing landing aircraft to a hangar or parking space, the jeep is fitted with a radio transmitter and receiver providing two-way communication between the jeep and the control tower. Its body is painted a bright yellow to be highly visible to the landing pilot. Red running lights are installed on top of the frame for night operations and headlights are modified to throw beams outward and upward.

Following instructions from the control tower, the jeep enters the necessary place to its proper parking space. Those of the jeep are now in use in the Mediterranean area, all built by the same Aviation Signal Corps organization, and a description and diagram of the modification have been submitted to the War Department for extension of the use of the design to other Army bases.

## Auxiliary Gas Tanks Used to Drop Food

Auxiliary gas tanks, designed to give longer range to fighter planes, are being used on the Italian front to keep troops supplied. The new use for the expendable tanks was revealed by United States Rubber Co., maker of the tanks.

They are made in two sections and lighter weight. The tanks, therefore, are expected for loading of food and medical supplies and re-cycled for special delivery to isolated troops in terrain where even pack mules have a difficult time operating.



## RCAF SPEEDS LOG BOOK HANDLING:

Royal Canadian Air Force has devised this horseshoe desk for use at its repair depots at training stations. Formerly the books were kept on racks above ledger type desks, making reference a tiresome job. The new system saves effort and time. Part of it is the board at the back, which gives data on each aircraft at the station and its serviceability.

## TORPEDO FREIGHT DELIVERY FROM FLYING WINGS?



A gigantic flying wing dips down toward port, releasing the freight-deck, a streamlined "torpedo" is dropped to the water — a freight-cell which is radio-controlled into the desired area for unloading. The Flying Wing speeds forward toward the next part of delivery, with its load of cells. This ac-

None can foretell the future of aircraft. Yet, in common with others in the aviation industry, Fafnir looks and thinks ahead. These designs for tomorrow... futuristic! The pioneers of the past might well have said the same of today's aircraft "monsters" — but they didn't stand still. They kept on designing, engineering and building.

The 45 years of Fafnir's close association with aviation have marked an era of teamwork — aerodynamic, structural and mechanical. Fafnir's assignment has been to engineer friction out and to engineer dependability, economy and efficiency into aircraft controls, through the designing and production of precision ball bearings.

craft might, for example, span the length of the Grand Tetons in a few hours, making deliveries two-thirds of time along its route.

When the day comes for launching new designs, such as the Flying Freight Wing suggested here, and other possibilities of the future, Fafnir will be ready to engineer and produce ball bearings especially to meet the specialized needs. The Fafnir Bearing Company, New Britain, Connecticut.

The Makers of Fafnir Aircraft Ball Bearings Present Number Two in a Pre-showing of Future Flight Possibilities — with Models and Settings Created by Norman Bel Geddes and Company.

SECTION SHOWING STORAGE AND DISCHARGE OF TORPEDOES



SIDE VIEW OF TORPEDO SHOWING ROLLER - PUSHER & TAIL FIN

FLYING WING FREIGHT PLAN

FRIGHT TORPEDOES ARE DROPPED AT HIGH SPEED IN WATER — EACH TORPEDO IS 10 LF LONG, PROPULSED AND AUTOMATICALLY DIRECTED BY RADIO

**FAFNIR**  
BALL BEARINGS  
for Aircraft



## PERSONNEL

George Descher, vice-president of Marine Midland Trust Co., New York, has been elected to the board of Tektamach Aviation Corp.

Frederick F. Colbert has been appointed general manager of Al-Fan Corp., subsidiary of Fairchild Engine and Airplane Corp. He recently resigned in American vice-consul at Casablanca. Colbert was in many years French representative.

atives for United Aircraft Corp. A graduate of the U. S. Naval Academy, Culbert was chief pilot of the Navy Lighter-than-Air School at Akron in 1917.

C. C. Weag, Jr., on military leave from his position as vice-president of traffic and sales of Continental Air Lines, has been promoted to lieutenant colonel in the Air Transport Command. He is stationed in Washington.

Henry (Hef) Kees will handle aircraft sales engineering activities for Hapco.



William H. Jackson, president of the Manufacturers Aircraft Association, says that the industry is not in a position to make direct contributions to the war effort.

and aircraft manufacturers, Army and Navy air arms, commercial airlines and other aviation organizations. The service is available on the West Coast through Airsupply Co., Los Angeles.

M. A. (Mike) Kennedy, former special representative of the commissioner of the Federal Works Agency, Washington, has been named supervisor of labor relations for Northwest Airlines. He has been transferred to St. Paul from Vandalia, Ohio, where he was supervisor of labor relations at the modification project operated by the airline for the AAF.

Rudolph H. Deegen, assistant to the president of Aviation Corp., has been elected a member of the board of directors, of Consolidated Vultee Corp., at a meeting in San Diego.

Deetjen is a partner in the investment banking firm of Emanuel and Co., of New York. He was a director of Vultee Aircraft, Inc., in 1940, and has served as a director of a number of other corporations, including Roosevelt Field, Inc.

Capt. C. W. Wooten, chief pilot of Pennsylvania-Central Airlines' Western region, has been appointed to the newly created position of system chief pilot. Capt. Harold Matlack, stationed in Detroit, and Capt. R. A. Neszek, stationed in Pittsburgh, have been named new assistant chief pilots. Capt. A. E. Wilson will serve in that capacity in Washington in addition to his new duties as chief of flight engineering.

E. B. Gery (photo) has been named general manager of Northwest Air-



**H. E. Geron**, manager of the maintenance division of NWA, who has served as acting general manager. Curry has been

Charles F. Nielsen, formerly traffic and transportation manager for Lockheed Aircraft Corp., is now a colonel in the U.S. Army Air Forces. He is chief, traffic division, Office of the assistant chief of Air Staff for Materiel, Maintenance and Distribution.



**Therrell**



**HEADS MATERIEL UNIT:**  
Brig. Gen. Franklin G. Carroll, who heads the Engineering Division of the AAF Materiel Command at Wright Field, Dayton, Ohio. General Carroll is placed respon-

planes and equipment.

Colin H. Malachuk, chief navigator for American Airlines, has completed a new book, *Long Range Flight*, which will be published in the spring. A former book, *Radio Navigation for Pilots*, was adopted by the Navy as its official textbook on radio navigation.

M. B. (Mike) Crawford has returned to United Air Lines as equipment engineer after serving as field manager for Peace Products.

years, Crawford has been with Spartan Aircraft Co., Tulsa, an engineer for Boeing Aircraft Co., Seattle.

will now assist in development of cargo-loading apparatus and other flight and ground accessories for Thailand.

John T. Triggs, president of Pan American Airways, has been awarded the decoration of the Hemálio Codeo de Christopher Columbus with the grade of Grand Officer by the president of the Dominican Republic, Eusebio E. Young. Pan American vice-president, received the same award.

Col. Clove Treves is the newly appointed Brazilian Air attache to Washington.

Col. Byron F. Johnson, USMC, naval attaché and naval attaché for air to the U. S. Embassy in Nigeria, has returned to this country from Colombia.



## HEADS MATERIEL UNIT:

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CONSOLIDATED CATALINA, Making Bigger Airline routes, including direct Pacific Island, visit here

the huge Alondra country club is still on the line at dusk, its three round golf courses and clubhouse.

SEND FOR THIS BOOK, "Pressurized Power and Controlled Flow" Read how PESCO pumping equipment, expressly engineered for aviation, now offers oil industry entirely new opportunities for more efficient use of pressurized power, or controlled fluid flow. This pictorial new book tells you about the many amazing improvements that now make possible new standards of performance. Be sure to send for your copy. Write, PESCO Products Company, 11610 Buck Avenue, Cleveland 6, Ohio (Delaware Reg. Office)

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PERFORMANCE POINTS TO *Festo* FIRST



# Brevity is the Soul of Wit—

## WHEN IT COMES TO

# Conserving Paper

**S**URE IT'S EASIER to let your diodes roll along. Sure it's easier to write long copy. Sure it's easier to do all the good, pleasant things of normal peace-time business when paper is like water, something you can pretty well use as you will.

But now, when the increasing paper needs of the armed services daily decrease the national supply of paper—when paper is a true war essential—that's a different story.

All of us in business must watch every piece of paper or paper board we use. We must judge its use in terms of absolute necessity. We must not use a single piece, a single inch, of paper which thwarts writing or printing or packaging can possibly save.

For multiplied on a national scale, that particular piece or inch of paper or paper board becomes the teenage needed by our service forces to ship precious food and ammunition and weapons and medical supplies and blood plasma to our troops overseas.

If there's no Paper Conservation Committee in your organization or in your community, why not get one going today?

This advertisement prepared under the auspices of the War Advertising Council in cooperation with the Office of War Information and the War Production Board.

# LET'S ALL USE LESS PAPER

Space for this advertisement contributed by AVIATION NEWS

### USE LESS PAPER BECAUSE

It takes 21 tons of blueprint paper to make a battleship

100,000 different kind of cases are shipped in the Army—and they're paper-wrapped or boxed.

Each service container, shipped from the Western Sloped Glass Co., takes 100 pounds of paper to make.

Each Sloped Glass Corp. coffee can takes 7 pounds of blank paper, 3 pounds of book paper.

Each propelling charge for 160-millimeter shell takes 2 1/2 pounds of paper.

### USE LESS PAPER THESE WAYS

Review all printed items periodically for economy, consolidation, elimination of waste space, simplification of data, simplification of text, simplification of other waste space.

Eliminate stock bills, thus effecting the economies of a smaller package.

Use standard-size booklets for notes taken before them in small envelopes.

Adjust the number of sides per case to the minimum practical.

Use and reuse envelopes paper consistently.

Consciously reduce the number of sides in utility boxes when boxed when such reduction will result in less damage overall. Be sure that the openings are as the smallest dimensions of the shipping container, so that the boxes will have the smallest ones possible.

Wesley D. Bell Williams (left) has been made superintendent of United Air Lines' western flight operations. He was formerly superintendent of United's eastern flight operations, and will now make his headquarters



Williams Reader Knapp

at San Francisco. He succeeds Paul Reader (center) who becomes superintendent of Pacific flight operations. Williams is being replaced by Reader L. Knapp (right) as superintendent of eastern flight operations with headquarters in Chicago. Knapp has been superintendent at Chicago. All three have been pilots.

Capt. Thomas L. Swartz has been transferred to a new station. He will be commander of Fleet Air, Naval Air Station, Alameda, Calif.

Nancy Fowler Maule-Saunders is technical aide to the power plant project



to hold this job with American

Big Gen. Hugh E. Kahn, deputy commander of the Mediterranean and commanding general of the Air Service Command for the Strategic Air Forces over Europe, has been promoted to the rank of major general. His articles on military aviation in *American Mercury* and other publications since time ago received national publicity before he was ordered to this post.

Melvin E. McCoskie, psychologist, has joined the medical division of the Civil Aeronautics Administration to make an analysis of the CAA's half million records of medical examinations of airplane pilots.

He was previously with the Traffic Court in Detroit, where nearly 3,000 cases a day are tried.

Ben Dinkins has been named general plant superintendent of Fletcher Aviation Corp.'s Pasadena plant.

Samuel N. Saut has resigned in connection to the Bureau of Aeronautics, Navy, to accept the position of general counsel to the War Relocation Authority. Saut was formerly general counsel to the Federal Bureau of Investigation.

Bertie N. Saut has been appointed assistant to the president of Garrett Corp. to handle special assignments for Garrett Supply Co., Aircraft Co., and Aircraft Manufacturing Co. He was formerly manager of foreign projects for Douglas Aircraft Co., Inc.



Ray Adams (center) is now in command of a carrier task force in the Pacific and was commander of the Lexington and assumed command of Fleet Air, West Coast, succeeding Ray Adams Wilson C. Harris.



### FETTERED FOR ANDES HOP!

Capt. Dagaberto Godoy, Chilean Air Force, was honored by Pan American-Greece Airways as the 25th anniversary of his flight as the first pilot to fly over the Andes Cordillera crossing Aviation Day in Chile were held at El Sengay, military airport at Santiago, on December 12 and Guy de Mores of Pan American-Greece presented Capt. Godoy with a sword. Dec. 12, 1918, Capt. Godoy, then a lieutenant, flew a one-engine, 110-hp. Bristol monoplane over the Andes.

William C. Thacher is the newly appointed district traffic manager for Pan American Airways in Los Angeles, succeeding George L. Seville. He was formerly assistant to the general traffic manager of the airline in New York. Thacher was appointed assistant sales manager of the Latin-American Division.



Thacher

Barney J. Adams has joined the public relations department of General Aircraft and Engineering Corp., Los Angeles. He was founder and editor of the magazine *Spencer's Pilot*, and was once prominent public relations representative of Ray A. P. de Seville.

Way Geo. Hubert Hanson has been appointed commander of all air forces in the Solomon Islands in addition to his command of the Army's 1st Marine Division. General Hanson's brother, Lieut. Gen. Hubert Hanson, is commander of South Pacific ground forces.

R. F. C. Twiss, chief of flight for Consolidated Vultee Aircraft Corp.'s Texas division, has been appointed assistant flight director for the corporation, and will make his headquarters at San Diego. Before joining Convair, he flew with the U. S. Marine Corps reserves, and also operated his own plane. A former owner and operator of a private flying school and now a Texas aviation test pilot, will take over Taylor's post as chief of flight for the division.

Tom Brown (left) has been made responsible manager of plant layout equipment and machinery control industrial engineering and methods at Douglas Aircraft Co., Inc.'s Santa Monica plant. He was instrumental in the development of the new Douglas "Brewster" assembly. Jack A. Heston, right, plant engineer of the Long



Brown

Beach plant, has been given charge of maintenance and construction of the numerous Douglas "Brewster" ships recently developed in nearby towns to manufacture subassemblies for the main factory.



**REYNOLDS SKILLED WORKMEN** do your fabricating for you. All you need do is furnish blueprints or templates. Reynolds takes care of the rest. Finished formed parts arrive at your plant ready for assembly.



**IF YOU DO YOUR OWN FABRICATING** by using this you take up by stock, machine and scrap. Take advantage of Reynolds' modern prefabricated plane parts service and save over that valuable space in your work.



**THOUSANDS OF FREIGHT CARS** like this one being unloaded on every other war materials when plane manufacturers use Reynolds' prefabricated plane parts. This Reynolds service does away with needless cross-shipping and handling of scrap.



**ELIMINATE THESE HUGE SCRAP ACCUMULATIONS.** Sawdust parts fabrication assembly generates an average of 30% scrap. The Reynolds Plan keeps this costly byproduct metal in the aluminum source, where it can be put back to work without delay.

# YOU SAVE 4 WAYS ... with REYNOLDS Prefabricated Plane Parts

- **MANPOWER**
- **SPACE**
- **TRANSPORTATION**
- **SCRAP**

Any production method that can save airplane manpower today certainly deserves serious consideration. Add to this the saving of plant space, transportation and scrap handling and you have a combination that's unequalled in speeding plane production.

Just such a method is Reynolds Prefabricated Plane Parts Service.

- It saves manpower because you receive finished aluminum parts ready for immediate assembly.
- It saves plant space because you do not have to restructure expensive stock piles, do all your own fabricating or store and segregate your own scrap.
- It saves transportation because it eliminates the need for freight cars to haul scrap metal from your plant.
- And it saves metal because the 30% of every aluminum sheet that normally becomes scrap

during fabrication can be put back to work in our plants in a matter of days instead of months.

Reynolds was the **FIRST**...

The first aluminum manufacturer to supply finished plane parts from aluminum sheet 3 years ago, Reynolds is, today, supplying finished parts to every leading manufacturer of combat planes. In that time Reynolds has built up the organization needed to make such a plan smooth-running, accurate, practical.

This forward thinking and co-operative planning has pushed Reynolds ahead to where its operations now cover 40 plants in 13 states, with its own source of Bauxite from which aluminum is made. This urge to "go places" is what keeps Reynolds men on a continual search for new ways to make aluminum better... make it easier and cheaper to use.

Take advantage of Reynolds' resources, equipment and engineering skill. For any problem you may have in working with aluminum, no matter what it may be, you'll find Reynolds able to handle it in the most practical way. Reynolds Metals Company, Aluminum Division, Louisville, Ky.

# REYNOLDS

The Great New Source of

# ALUMINUM



## AIRCRAFT PRODUCTION

### Wright Aero's Hp. Output Establishes All-Time Top

Total of 384,200,000 hp. produced between Pearl Harbor and Jan. 1944, Guy W. Vaughn, president, reveals.

Wright Aeronautical Corp. produced Wright Cyclone and Whirlwind aircraft engines representing 384,200,000 hp between Pearl Harbor and Jan. 1, 1944, an all-time record for production of aircraft engines designed by one company, the firm reports.

**► Engines Spares**—The production includes installation engines and spares built in Wright's Patuxent and Cincinnati plants and the Cyclone 9's of 1,200 hp. built under license by Studebaker Corp. for Boeing Flying Fortresses and Whirlwind 9's of 400 hp. built under license by Continental Motors for medium tanks and gun carriers.

M. D. Gordon, Wright's vice-president and general manager, said the bulk of the production was on Cyclone 9's of 1,200 hp. for each month of the Boeing B-17, Douglas Dauntless and Lockheed Martin and Loderstar, and on two models of the Cyclone 16, one at 1,600 hp., mainly for use in the Douglas H-34 and Martin Baltimore, and the other two at 1,350 hp. for the North American Mitchell, Grum-

man Avenger, Curtiss McKibben and Martin Mariner.

**► 1943 Volume Score**—During 1943, however, volume of horsepower was revealed in the Cyclone 16 of 2,300 hp. was placed as quantity production for new super-bombers and other military planes. In addition to combat planes, this big Cyclone is also being built for the Lockheed C-46 and the production version of the Marine Hawk.

Gordon said that in two years the company had to design, construct and tool new plants representing 100 percent increase in manufacturing area, although the manufacturing area already had been increased more than five times between the outbreak of hostilities in Europe in 1939 and the Pearl Harbor attack.

**► Production Rate Up**—During the two-year years, monthly production rate of the Cyclone 9 (301020) has increased 51.3 percent. The Cyclone 16 (301600) shows an increase of 197.3 percent in the rate of monthly production and the schedule calls for rapid acceleration in volume all

through 1944. Production of the Whirlwind 9 (30151) engine used in tanks and gun carriers and training planes was turned over to Continental Motors under license and Wright Aeronautical will be out of production of this model within a short time.

In the 24-month period, Gordon said, production advanced to a point where current horsepower schedules are 240 percent over those of December, 1941, while the production schedule now in effect shows that during 1944, Wright horsepower production will almost double that of 1943.

Sharply contrasted with the total of 204,200,000 hp. for 25 months or an average of over 11,000,000 a month, in the production figure for September, 1939, first month of war in Europe, when the engine output reached what was then a new high of 204,000 hp.

### Lockheed Station Aids Radio Research

Ultra-high-frequency laboratory seen newest chance for aviation radio.

An operational testing station, designed to keep abreast of the racing trends in radio technique, is now being operated by Lockheed Aircraft Corp. at one of the few so-called television sites in the Los Angeles metropolitan area.

Complete modern equipment, including 14 receiving sets and area transmitters, permits the station to operate across the entire range of radio frequencies, including some which still are largely theoretical or experimental.

**► Radio Tested**—Lockheed engineers say that the possibilities of the station are boundless, in the broad-spectrum fields of television, very-high-frequency, ultra-high-frequency, and super-high-frequency radio. The immediate purpose of the station, of course, is the testing of the radios in Lockheed airplanes, to insure delivery to the Army or Navy in operating condition, which will assure maximum performance.

The average military airplane today carries from three to five separate radio sets, and the Lockheed C-54 transport has nine.

**► Strategic Situation**—At the new Lockheed station, which cost \$100,000, stands on a street in the Santa Monica Mountains, a few miles from the main Lockheed head assembly plant in Burbank.

### Chamber Conducting Packaging Series

Special studies to preserve and package airframe spare parts for shipment to any section of the globe are under way through coordination of the Technical Department of the Aeronautical Chamber of Commerce.

**► Program**—The studies now being conducted follow an original program which met the problem of packaging and preserving engine and accessory spare parts, in which experiments were conducted by some 25 manufacturers, Wright Field, the Navy's experiment station, Army Ordnance, the Navy Bureau of Ships, oil and paper companies and representatives of the chemical and metallurgical industries as well as other Army and Navy units. All these experiments were coordinated through the Chamber and the result has been adoption of standard procedures.

The success of this undertaking, the tremendous value of undamaged deliveries to the battlefronts, led to extension of the studies to wheels, struts, brakes, hydraulic mechanisms and fuelage systems.

### Wins Wright Medal

Wright Brothers medal, awarded annually to the author of the best Society of Automotive Engineers meeting paper, will be presented to C. E. Pappas, of Republic Aviation Corp., at the National Aeronautics meeting of the SAE in New York Apr. 8. Guest speaker at the dinner at which the award will be made will be Major Gen. Frank O. Hinder, who will speak on "The Army Air Forces in the Present War."

The SAE aeronautics meeting will be held Apr. 5, 6 and 7, at the Hotel New Yorker, with the full three-day program geared to a war engineering theme.

### Parts Group Elects Amory Manager

Executive staff reorganization followed closely the announced intention of Aircraft Parts Manufacturers Association, Los Angeles, to seek post-war perpetuation of 3,300 West Coast parts plants.

Designation of C. C. Coddling as Association manager resulted in



NEW PROPS FOR REPUBLIC'S THUNDERBOLT:

A substantial number of Republic P-47 Thunderbolt fighters are now coming off the line with new propellers—Hamilton Standard and Curtiss. This photograph released by Hamilton Standard division of United Aircraft shows a four-blade Hydromatic, diameter of more than 12 feet, which allows the P-47 greater altitude, faster climb and speed. The blade shown is the same as on the Grumman Hellcat's 4-blade propeller. Hamiltons are now used on the four newest fighters, P-51, P-47, P-51 and P-47.

appointment of H. Russell Amory, former WPA administrator for California.

**► Business Service**—Wallace MacKenzie, for four years with Lockheed Aircraft Corp. and recently chief of material control for the factory, will head the newly created business service section of the Association. A. J. Seefeldt, formerly with Planch Tool Co., Los Angeles, will direct the Association's industrial relations section.

### New Rolls-Royce

The new Rolls-Royce Griffon, installed in the Spitfire, has been disclosed to have 25 percent greater horsepower than the original Merlin, from which the Griffon engine that powers America's long-range Mustang fighter was developed. The increase has been built in without increase in size.

The Griffon—named for a mythological half-eagle and half-lion—has twelve cylinders developing greater horsepower than the 1,600-hp. Merlin. It is equipped with a two-speed mechanically driven supercharger.

### Navy Sets Up Contract Groups

Bureau of Aeronautics forms contract termination division.

The Navy Bureau of Aeronautics has established a contract termination division, headed by Commander Frank A. Zimma, USN, and staffed by about 25 officers. Secretary Knox, Feb. 26, issued a directive that such units should be set up at all bureaus.

The division is to terminate aeronautical contracts when necessity for the product has ended or the equipment becomes obsolete. In terminating contracts, the division will dispose of surplus production and material.

**► Reorganization**—Reorganization of contracts does not come under direction of the division.

Prior to the directive, Bureau of Aeronautics contracts were terminated by command.

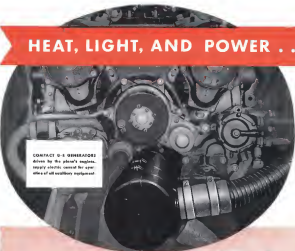
Comdr Zimma has been a reserve officer in naval aviation since the last war and was associated with the law firm of Parks and Dwyer in New York.



2,200 hp. Wright Cyclone 16's on Assembly Line: Photo shows Cyclone 16 aircraft engines, of 2,200 hp. each moving down an assembly line. Cyclone 16's such as these pictured were part of the 244,200,000 hp. reported produced in Cyclone and Whirlwind engines by Wright and two license companies, Studebaker and Continental Motors, between Dec. 7, 1941 and Jan. 1, 1944.



# HEAT, LIGHT, AND POWER . . . . Five miles up!



**CONTACT G-E GENERATORS**  
Driven by the plane's engine,  
they electrically control the oper-  
ation of all auxiliary equipment.

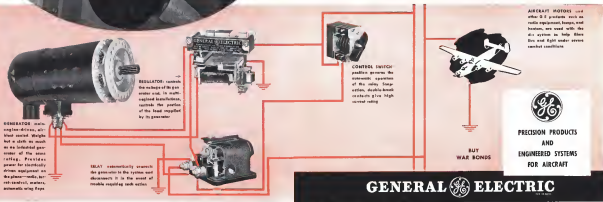
The General Electric d-c power system shown here not only generates electricity—it also regulates the voltage and distributes the current to every part of the plane. From powerful, though small, generators to relays, contactors, and switches, this aircraft power system is designed and engineered as an integrated whole to G-E standards. It is one of several types of G-E control and operating systems—power supply, speed control, automatic pilot, ignition—built for use on United Nations' aircraft.

As ships increase in complexity, the need for automatic operation becomes more pressing to free air crew members for more important duties. The resources of General Electric are devoted to the manufacture of such automatic

systems. Systems that automatically position cool flaps and intercooler shutters, synchronize the operation of two or more parts of the ship, control armament—take over flight operations formerly performed by the ship's crew.

The flexibility, reliability, and light weight of these G-E systems are reasons why many designers now make it General Electric when they make it automatic. Then, too, aircraft mass fighters will find that man hours can be saved by ordering complete electric systems, engineered by one experienced manufacturer. For technical information regarding G-E aircraft systems, and consultation on contemplated projects involving such systems, write to the nearest G-E office: **General Electric Company, Schenectady 5, N. Y.**

**Typical G-E components of the D-C POWER SYSTEM**



## P-38 Camera Ships Described by Army

Wie Dept. less down here on some details of craft used in reconnaissance.

Details of the Lightning P-3 photo-reconnaissance plane flown by the "Focus Cats" of the AAP have been released by the War Dept and Lockheed Aircraft Corp. after months of service over Europe. The P-3 differs only in the substitution of camera-power for firepower, it was revealed.

No structural changes were made

in the conversion. Guns and firing mechanisms weighing about 300 pounds were removed and cameras and equipment weighing about 300 pounds substituted. This saving in weight increased the ship's speed and range, and a further boost in speed came from the smoother nose made possible by removal of the gun parts.

**Camera Equipment**—The cameras shoot through special glass windows set flush with the fuselage and built in at angles which depend on the camera used. The camera compartment utilizes a camera lens to maintain operating temperatures at the 30,000- to 38,000 feet at which the P-3 usually

operates, although on some missions the P-3 may fly in even enemy territory at 200 feet or less.

**Photo Overlay**—On one version of the P-3, two cameras take overlapping pictures, shooting straight down from a single window. The most common setup, according to the War Department, is the transverse method, consisting of three cameras that shoot three different surface views taking in a path from horizon to horizon.

For low-level flights, the distribution continuous strip camera is mounted. All cameras are electrically operated and can be adjusted for most conditions from the cockpit.

Lockheed revealed that one group of "Focus Cats," assigned to photograph 288 enemy air bases in Europe, brought back 197 of them in six days.

## Kaiser Withdrawal Cites Cost Tangle

Industrialists tell Brewster stockholders of possible Navy claim after approving takeover price.

One of the confusing elements clouding the reorganization and cancellation picture appears to have been one of the factors motivating the withdrawal of Henry J. Kaiser from Brewster Aeronautical Corp.

Kaiser, in a letter to Brewster stockholders in which he said he would not accept re-election to the presidency of the corporation, pointed to the question when he said:

"The Navy has under consideration the question whether it should assert a large claim against the company based upon allegedly excessive costs for labor, tools and materials incurred in the performance of Navy cost-plus contracts. These costs have previously been approved and paid by the Navy, but the Navy is now considering whether to claim that it is entitled to recover from the company the amount by which costs might be claimed to have exceeded retroactive costs."

**May Leave Three Aides**—Kaiser did not leave three members of his operating committee to assist in the affairs of the corporation if the stockholders ask it, adding that he felt that "the task of placing the company in a position to discharge its responsibilities . . . has been accomplished." He and Brewster is now on schedule with Corvair.

## New duPont Putty Cuts Skin Friction

Material described by company as flexible and less subject to shrinkage.

An important step toward eliminating airplane "skin friction" is seen in an announcement of the duPont company finishes division that C. W. Johnson, of its Park, N. J., laboratories has developed a flexible, high-adhesion putty for filling dents and cracks between riveted aluminum sheet forming the wings.

The layman often overlooks the importance of wing surface smoothness. A Langley Field report says a transport flying at 225 mph spends 150-lb. pulling rivet heads and lap joints through the air.

**Putty Problem**—Aircraft putties heretofore in use either shrink considerably, become brittle with age, or were not flexible enough to withstand vibration, particularly at the low temperatures encountered in high altitudes. In many cases, finishing operations were retarded because the putties dried slowly.

DuPont engineers say their new aircraft putty has a battery consistency, stays in place, is fast-drying and low in shrinkage. It weighs about 25 percent less than conventional putties and is now under test by a number of major aircraft manufacturers. It is now available only for war use.

## U. S. Plywood Gets Cascades' Output

Acquires control of entire production through loan, stockholders are told.

United States Plywood Corp. has acquired long-term control of the entire production of the world's largest plywood plant through a "substantial, secured loan," Lawrence Gittner, president of USPC told stockholders.

The plant, owned by Cascades Plywood Corp. at Lebanon, Ore., has a manufacturing capacity of 12,000,000 feet of its plywood annually. "This production," he said, "in addition to our own large manufacture at Seattle, should enable your company to supply its present and projected distribution and. Your company has no ownership interest in Cascades Plywood Corp."

**Sales**—Net sales of USPC and subsidiary companies for the nine months ended Jan. 31, 1944, totaled \$15,107,000, against \$11,194,546 in the same period a year earlier. Net profit after taxes totaled \$634,285.

## Chrysler Technique Speeds Helldiver

Power-driven assembly lines used at DeSoto Division of company.

Power-driven automotive assembly lines are being utilized at a plant of the DeSoto Division, Chrysler Corp., in a new phase in speedy production of aircraft sections, for the precision task of turning out center wing sections for the Navy's Curtiss Helldiver bomber.

The center wing section of this plane comprises a large percentage of the entire airplane and the technique involved in this manufacturing job characterizes the building of heavy wing sections on stationary fixtures.



## AUTOMATIC PILOT TEST:

First released photograph of electronic automatic pilot used on American precision bombing planes reveals unusual technique necessary to make area test successful. Worker at Minneapolis-Honeywell Regulator plant, developers of the device, is shown at "test table" which is made to hold spinning gyroscope so that the instrument is exactly parallel to the earth's axis.

**Conversion Experience**—DeSoto had previous experience in conversion and adoption of former automotive production facilities to aircraft sections, such as fuselages for the Martin B-26 Marauder.

Both assembly and inspection jobs, under the new program, are done progressively as the line moves forward. DeSoto has divided the center wing section manufacturing into hundreds of subassemblies. Automobile paint ovens and spray booths transform the aluminum to dark green.

**Auto Systems Used**—Leading and trailing edges for wing sections are put together on former body and chassis assembly lines. Smaller lines used in the waterbush building days are now used for gun links, rim, wiring hydraulic assemblies, landing gear and many smaller units that ultimately assemble to make a wing. Along the final lines, the wings take shape quickly. The entire line of 30 fixtures, each weighing several tons, is moved along by a power-driven endless belt.

## Officers Relected By Breeze Corp.

Breeze Corps, Inc., unanimously reelected its officers and directors at the stockholders' meeting in Newark. John T. Manach was re-elected president; Joseph F. Lucas, vice-president; Fred G. Shapp, treasurer; and David T. Wilkins, chairman. In addition to these four directors, the board consists of Francis C. Mandrath, president of the Federal Trust Co. of Newark; Clarence K. Parole, a director of Maxwell Corp.; and H. H. Reynolds, president of Federal Laboratories, Inc., Pittsburgh. Herbert C. Dwyer was re-elected secretary.

## Light Plane Talks

Two days of intensive discussion of the future of light aircraft and technical advances in that field will be held in Detroit, Apr. 27 and 28 at the national light aircraft meeting of the Institute of Aeronautical Sciences. Sessions will be held at the Horace H. Rackham Educational Memorial.

Among papers to be delivered are "Wing Plans in Light Aircraft Design," "Packaged Power," "What Instruments for the Light Plane?" "Flight Straps" and "The Bell Helicopter."

## 3,500 Key Airline Personnel Come Under Tighter Draft Order

Men in vital flight and maintenance positions affected by President's move to cut occupational deferments to bone.

By MERLIN MICKEL

Air Transport Command has been given figures showing that more than 3,500 airline flight and maintenance personnel in key positions are of an age that makes them vulnerable to the President's order for greater restriction on occupational deferments and expedited increase in drafting men between 18 and 26.

Since this constitutes approximately a fourth of the entire personnel in flight and maintenance jobs, and includes many skilled employees, the airlines are watching closely the results of Selective Service's delegation to state selective service directors of war work-

er deferment responsibility.

**Intervention Possible**—Obviously less than 28 percent of this personnel would be a staggering blow to the airlines, and it is equally apparent that the figures were forwarded to APTC in hope of intervention by that Command.

In maintenance alone, about ten men are required to service every plane, and the lines are flying approximately 400 planes in their commercial operation and military contract work, both of which the figures covered. Moreover, four years are required to train a skilled mechanic.

The airlines' completion while

### Labor Problem

Airline officials perturbed about the draft situation as it threatened their key men under 26 could take heart when they received a joint letter from Secretaries of War and Navy to the Secretary of Commerce, stating that "in both necessary and profitable to allocate available aviation personnel and material in such a manner as to insure the maintenance of airline service without reduction in its safety and reliability."

That was in 1948, but less than a year ago President Roosevelt wrote Secretary Acheson that as transport had become a "necessary adjunct to our war effort," virtually the words Gen. Marshall used in January, 1942.

It showed the number of personnel under 22 and between 22 and 26, broken down by 10 airlines and 16 occupational jobs, and set out reasons or deferments already granted. Some of the airlines did not include men classified 4-F but made did.

► **Figures**—Flight personnel under

22 number 147, and between 22 and 26, 1,443, a total of 1,532. Maintenance personnel under 22 number 421, and between 22 and 26, 1,505, a total of 2,925. Flight personnel under 22 includes one captain, 34 co-pilots, 103 radio operators, 42 engineers, and 7 navigators; between 22 and 26, 100 captains, 638 co-pilots, 277 radio operators, 132 engineers and 76 navigators. Maintenance personnel under 22: 2 foremen, 9 crew chiefs, 4 inspectors, 25 senior mechanics, 11 lead mechanics, 147 mechanics, 68 junior mechanics, 135 apprentice mechanics and 12 radioelectricians between 22 and 26: 34 foremen, 35 crew chiefs, 70 inspectors, 164 senior mechanics, 60 lead mechanics, 733 mechanics, 264 junior mechanics, 162 apprentice mechanics, 69 radioelectricians. By airlines:

► **American**—flight under 22, including 40 flight engineers and 131 maintenance personnel; between 22 and 26, including 141 flight personnel and 142 maintenance personnel; a total of 283.

► **Continental**—flight under 22, including 10 flight engineers and 10, including 6 flight personnel; between 22 and 26, including 10 flight personnel and 10, including 6 flight personnel; a total of 20.

► **Eastern**—flight under 22, including 10 flight engineers and 10, including 6 flight personnel; between 22 and 26, including 10 flight personnel and 10, including 6 flight personnel; a total of 20.

► **Northwest**—flight under 22, including 10 flight engineers and 10, including 6 flight personnel; between 22 and 26, including 10 flight personnel and 10, including 6 flight personnel; a total of 20.

► **Southwest**—flight under 22, including 10 flight engineers and 10, including 6 flight personnel; between 22 and 26, including 10 flight personnel and 10, including 6 flight personnel; a total of 20.

► **Transcontinental**—flight under 22, including 10 flight engineers and 10, including 6 flight personnel; between 22 and 26, including 10 flight personnel and 10, including 6 flight personnel; a total of 20.

► **Western**—flight under 22, including 10 flight engineers and 10, including 6 flight personnel; between 22 and 26, including 10 flight personnel and 10, including 6 flight personnel; a total of 20.

► **United**—flight under 22, including 10 flight engineers and 10, including 6 flight personnel; between 22 and 26, including 10 flight personnel and 10, including 6 flight personnel; a total of 20.

► **Western**—flight under 22, including 10 flight engineers and 10, including 6 flight personnel; between 22 and 26, including 10 flight personnel and 10, including 6 flight personnel; a total of 20.

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### PCA REDUCES ELECTRICAL TESTING TIME

Pennsylvania-Central advances development of a generator and generator circuit breaker detector that tests testing time from two hours to a few minutes and makes it unnecessary to remove installation in the plane. The apparatus was worked out by E. G. Johnson, executive director of line maintenance for PCA in Washington, shown at work in above photo.

### Indianapolis Port Renamed for Aace

Indianapolis Municipal Airport this week became the **Wear Cook Municipal Airport** in memory of the first ace of World War I to lose his life in the current world conflict.

Col. Harvey Wear Cook of Indianapolis was killed May 24, 1943, in the crash of a P-46 in the Southwest Pacific.

**National Dinner**—About 2,000 were expected to attend the memorial dinner, with Orville Wright, Gen. H. H. Arnold, Capt. Eddie Rickenbacker and Charles Lindbergh among the invited guests of honor and Maj. Gen. John H. Curry of the Western Technical Training Command as principal speaker.

### Pogue Sees Spurt In Private Flying

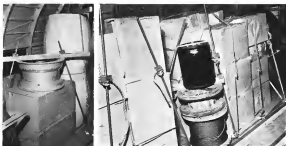
Travel by personal plane will be far in excess of travel by commercial airlines after the war, in the opinion of L. Welch Pogue, chairman of the Civil Aeronautics Board, expressed at a Southern Commercial Secession Convention in Birmingham, Ala.

To obtain widespread use of personal aircraft Pogue said they must be made reasonably in cost and reasonably safe. Safety rules must be simple enough for the average citizen and the nation must supply adequate airports and landing strips.

### Planes Fly Fruit From Rio Grande

Fresh fruits and vegetables flown from the Rio Grande Valley in Texas were served at the air cargo meeting held in Detroit last week under sponsorship of Wayne University and the Detroit Board of Commerce. Braniff and American Airlines carried the Texas shipment, which was part of a demonstration in which seven airlines and four grower states and Mexico, Central and South America, participated.

The meeting was held in connection with the publication of a survey made under the Edward R. Evans grant for air cargo research, dealing with economics of air transport and air cargo possibilities. Speakers included Secretary of Agriculture Wickard, CAB Chairman L. Welch Pogue, CAA Administrator Charles I. Sizoo, and Col. Edward S. Evans.



### MILITARY CARGO TIE-DOWNS STUDIED BY AIRLINES

The airlines are studying these tie-down methods, adopted several months ago by the Air Transport Command and Naval Air Transport Service. Using Brown Shackleton, the expert, it said 30 have solved the problems of cargo shifting in flight. One picture shows how rope hooks are used instead of

hooks, placed in a floor ring with rope lashed through to prevent slippage. Another use shows a rod and beam to secure flat surface loads. In each case the beam rests on the floor and is directed and held and hooked down with special equipment to lock the load in the floor.

# AA Acquisition of Export Studied For Effect on U. S. Air Policy

Move regarded as serious blow to "chosen instrument" program advanced by Senator McCarran's aviation bill.

Whether prearranged or coincidental, the timing on announcement of a merger agreement between American Airlines and American Export Lines was a blow to the chosen instrument school of thought, coming as it did on the heels of Senator McCarran's bill to make the latter government policy.

It firmly established the intention of America, a member of the Airlines Committee for U. S. Air Policy which favors regulated competition on the international field, to enter that field on its own. McCarran a day or two earlier proposed a single billion-dollar, federally-chartered company, with airlines as stockholders, an international post-war operation.

**Recently Joined Committee**—American Export Airlines, which recently joined the Airlines Committee, is controlled by American Export Lines, a steamship company, has been assured by American officials that the latter intends to use Export Airlines as "the company through which they will conduct their overseas operations."

This intention, disclosed in a letter to Amex employees by J. E. Slater, Export Airlines' executive vice

president, was set clarified in the joint statement on the merger, stating that American proposes to operate American Export Airlines "as a separate entity" and itself serve terminals in the United States to overseas routes. American applied last year for a route from Chicago, Detroit, New York and Boston to Europe. Export Airlines has operated between the United States, the British Isles and Africa since 1942 under Civil Aeronautics Board certificate, and has a temporary certificate for New York-to-Lisbon, but has no landing rights in Portugal except for emergency purposes. It has applied for international trunk lines from Washington, New York, Boston and Chicago, one to the British Isles and the Mediterranean area, terminating in Scotland, and the other to serve Africa from the same United States terminals.

**Merger**—The proposed merger would be a wedding of the largest domestic company and the smaller of the two American flag carriers certified for transoceanic service. The merger, which does have landing rights in Portugal and many other places, is Pan American Air-

## Early Hearings

There is no reason why hearings on the proposed acquisition of Export Airlines by American Airlines cannot be scheduled for an early date, according to spokesmen for the Civil Aeronautics Board, which must pass on the transaction. Attorneys in the Board have indicated they will submit to the civil air law to forbid such a merger.

The agreement is regarded as an effective reply to the Board's order that the Export Airlines divest itself of control by Export Steamship.

If pending applications for routes other than those to be acquired by Export Airlines are approved, Export Airlines will continue operations on its own, but Export Steamship will not exist.

It is pointed out that permanent certificates on the Boston and Lisbon routes are still pending. That the purchase depends on route certification—about which there is little doubt—as well as upon approval of the merger.

ways. All three are flying overseas constantly under military contract, so are many other airlines.

Announcement of the plan by which American would acquire control of Export Airlines already agreed to, was made by A. K. Kuper, president of American, and W. H. Coverdale, president of American Export Lines. Application has been made to the Civil Aeronautics Board for its approval. The joint statement said "expedient steps" will be taken to develop Export Airlines' trans-Atlantic service when that approval is obtained and further expansion is available.

**CAB Approval Asked**—American asked CAB to approve its purchase of Amex treasury stock carrying control of the company for \$2,000,000, which it bought paid into Export Airlines' treasury. In addition to providing capital for Amex development, the plan was seen as a solution to the situation in which CAB has directed divestment of the steamship company's control of American Export Airlines. Next Oct. 25 has been set as the deadline for submission of the divestment plan.

Under the agreement, newly signed, after control of American Export Airlines passed from American Export Lines to American Air-

lines, a new board president and vice president, would be elected. **Name Identity Unchanged**—Slater explained that, under select features of the plan, the name American Export Airlines, Inc., and corporate identity of the company would not be changed. Export Airlines would sell 100,000 shares of its common stock to American Airlines for the \$2,000,000, which would give the latter at least 51.4 percent of the total common. American Export Lines would retain, as a minority stockholder, 50,000 shares of the stock it now owns. The \$2,000,000 would enable Export Airlines to discharge all debt and have "ample cash" as its treasury and credit for future financial requirements. Lastly and important, American Export Lines would fulfill CAB requirements that it divest itself of control of American Export Airlines.

## ACC Maps Post-War Air Research Unit

Committee aimed to continue experimental work on airplanes.

Looking toward the time when the accelerated experimental work in the aircraft industry may suffer from after-war stagnation, the Economic Development Council of the Aeronautical Chamber of Commerce has set up a new Post-War Defense Committee headed by Dean C. Smith, director of development, Fairchild Engine and Airplane Corp.

This group was named to work particularly on plans to narrow the continuation of experimental development of aircraft and include, in addition to Smith, Joseph T. Gearing, Jr., vice-president of General Aircraft Corp., and H. W. Collins, eastern representative of Northrup Aviation Corp.

**Expulsion Pending**—The Economic Development Council, of which Irving Taylor, eastern representative of Douglas Aircraft, is chairman, discussed pending legislation, affecting control termination, disposal of surplus aircraft and plants with various members of Congress at a dinner meeting in Washington the same day.

Taylor and James P. Murray, Boston vice-president and president of the Chamber, said a minority of dissent between the Chamber and members of Congress interested in aviation warfare and development was established during the informal talks.

## Flight Strip Data Given House Group

Road Commissioner urges construction as means of saving cost of more elaborate airports.

Construction of flight strips adjacent to public highways as a money-saving project against the tremendous requests for elaborate airports, is recommended by Thomas H. MacDonald, Commissioner of Public Roads.

Tentatively before a House Appropriations subcommittee, MacDonald said the experiment with flight strips "has been thoroughly satisfactory as far as the utility of the operation is concerned."

**26 Strips Constructed**—Twenty-six flight strips have been constructed in various sections of the United States—locations restricted—under a \$16,000,000 appropriation.

MacDonald informed Congress that he believes there has been developed under the \$16,000,000 appropriation a type of facility that can well supplant the design used for a great many of the very costly airports that have been built and thus save a large amount of money on facilities to be built in the future.

The original appropriation was made so that the feasibility of single runway landing fields might be determined.

In this respect, MacDonald testified, their feasibility from the standpoint of aeronautical requirements has been demonstrated and the economy of providing flight strips over conventional runways for landing and take-off of aircraft where complete airports are not essential has been proved.

**Surveys Asked**—He said that in addition to the original program which is now nearing completion, the AAF has requested that surveys, plans and specifications and estimates be prepared for a number of additional flight strips. These surveys and plans have been made but no further consideration is possible, due to lack of funds.

All flight strips thus far have been constructed for military purposes and are situated to accommodate arrivals of the various Air Forces and in many cases they have reassigned the flight strips to the air bases under their command to be used for training operational and emergency purposes.



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## PAA OPERATES "CORONADOS";

Usual element of one of Naval Air Transport Service's Coronado flying boats, in for maintenance at Pan American Airways' trans-Atlantic base at La Guardia Field. Bulk of the 24-ton cargo carrier may be moved from the flyers in large launch and flight deck. The girls are Women from USS Hunter College in New York City.



## AA San Antonio

### Ruling Due Soon

Early decision expected on application for stop on Mexico City route.

An early decision is expected on American Airlines' application to include San Antonio as an intermediate point on FAM 38 between Fort Worth-Dallas and Mexico City. Chairman Pease and members Ryan, Lee and Warner heard American's oral argument for the stop, which has the endorsement of Executive Thomas J. Wright and Public Counsel D. Phyllis Kell.

Following closely the settlement at the examiner's hearing, American stated that utilization of the requested stop would lighten fuel requirements and thereby increase plane capacity. They pointed out that said service from the membership office at San Antonio would be expedited, and that faster service than any currently available would be provided.

**Intervenor.** Eastern and Braniff, both now operating into San Antonio, were intervenors. Eastern's objection was based on the fact that granting American's request would give that line a through haul to Washington 30 miles shorter than Eastern's.

Braniff's Charles E. Beard, vice-president in charge of traffic, stated that there was every possibility Braniff could increase its service when its proposed linkage with Aerovias Braniff & A., a Mexican company, goes on a working basis. Braniff's Mexican interests were mentioned especially when Aerovias Braniff & A. acquired the rights to Lomas Aerovias Manzanillas. They now hold operating licenses granted by the Mexican Government covering 4,681 miles of routes.

**CAB Approval.** At Ashland—Beard said CAB approval of their Mexican holdings would be asked. Public comment, finding American's application consistent with public convenience and economy, said Beard would be expected with the restriction that flights stopping at San Antonio must begin or terminate at Mexico City, thus ruling out the possibility of so-called "merry-go-round" service between San Antonio and Fort Worth-Dallas.

American's application to make permanent the temporary certificate under which they are now flying FAM 38 is incorporated in the Caribbean proceeding.



Marc Thompson

### Long-Range Port Study Made by CAA

Civil Aeronautics Administration is studying long-range airport needs in its latest study of trends and requirements in airport building design.

There was a time, and Charles R. Donaldson, CAA's director of airports, admits it, when airport buildings became outmoded before occupancy.

**Study Being Made.**—Now, he says, "whatever we plan must be planned with regard to its eventual development, no matter how little we build at present."

The current study is being done by Marc Thompson, head of CAA's new Airport Building Design unit. He is in a cross-country tour ending today in Chicago. Thompson is also in Los Angeles, San Francisco, Seattle, Spokane, Salt Lake City, Denver, Kansas City, Fort Worth, Dallas, New Orleans and Atlanta.

**Port Architecture.**—The experience as an architect will help him in obtaining information on the types of airport facilities and their estimated requirements for five years after the war. The study is to include terminals, for air carrier operations, and what the requirements may be for administrative buildings for private airports.

**Dates Postponed.** Postponement of important duties in the Latin-American proceedings involving applications for service in the Caribbean and South America was announced by the Civil Aeronautics Board. Hearing date, originally set for May 13, has been postponed indefinitely. The deadline for exhibits is now June 1.

## SHORTLINES

►The American this week decides the local clipper service between San Juan, Puerto Rico, and Port of Spain, Trinidad. Service was weekly and new will be twice weekly.

►The name of Lucas Aircas, S. A., required last year by United, has been changed to Lomas Aerovias Manzanillas, S. A.

►Bivestmentees are being used by Pan American on its shorter flights out of Mexico. Middle easterners are serving as long routes, such as those to Suez and the Canal Zone. Employment of aircrews on international flights is not new, American having done so since opening of the Canada and Mexico flights.

►Testwork estimates for elementary and high schools are being compiled for Civil Aeronautics Administration by a research staff at Stanford University School of Education. Rosemary R. Bunker, formerly of CAA, has gone to Stanford to serve as chief aviation consultant. The work is expected to take six months.

►Organization of Airpass, Ltd., as a joint-air-carrier service, the European circuit, has been announced by Count G. de Langehe, former manager of the Hellenic Airlines, according to reports from London.

►A 2,500 percent increase in modification of heavy bombers was shown in Continental's Denver modification center report covering July 1945 to December, 1945. During the period 1,680 aircraft were handled by the center, chiefly B-29s. A few P-48s and some Mustang craft also were modified there.

►Possible Army control of the Pittsburgh Office. Townsend Lupton was announced by the Allegheny County commissioners. The commission is considering purchase of additional land to expand the runway area.

►Pan American is distributing English-Spanish and English-Portuguese word pocket dictionaries. The experience as an architect will help him in obtaining information on the types of airport facilities and their estimated requirements for five years after the war. The study is to include terminals, for air carrier operations, and what the requirements may be for administrative buildings for private airports.

►Confidential Air Lines announced plans to make special services for the emergency available to private flyers after the war. Maintenance shops and personnel will make emergency repairs for private planes, and the company's meteorological service and astronomical library will be offered for use by the licensed private pilot.

►President Trujillo, of the Dominican Republic, has awarded the Beneficent Order of Christopher Columbus with the grade of Grand Officer, to Juan T. Trujillo and Juan Young, Pan American's president and vice-president, respectively, in recognition of the airline's services to the country.

## Nar! Aviation Buys 6,000 Shares TACA

Six thousand shares of TACA stock have been purchased by National Aviation Corp. at \$5.25 a share, completing a transaction first revealed by *Postweek*. J. Robertson, vice president of the annual meeting of stockholders. Completion of the purchase was delayed by legal technicalities.

The National purchase, involving \$31,500, adds to total American holdings of TACA stock. Transcontinental and Western Air last fall participated in purchase of stock valued at \$2,250,000. TWA, buying \$1,380,000 in stock, with the same group. To American Express Co., an investment trust, Time, Inc., Aviation Investment Trust and Stewart McDonald. Total authorized TACA capitalization is \$5,000,000, all of which has not been issued.

## WTS Status

Absence of a full attendance at a Senate Commerce Committee meeting last week delayed again. Committee action on legislation to organize CAA's War Training Service. Senator McClellan asked that his bill (S. 1432) go over.

## CAB ACTION

►When both have taken flight toward the transatlantic air line, pending of certain conditions, the CAB will be the final authority to grant or deny the proposed route. The CAB will be the final authority to grant or deny the proposed route. The CAB will be the final authority to grant or deny the proposed route.

►License suspension. The CAB will be the final authority to grant or deny the proposed route. The CAB will be the final authority to grant or deny the proposed route. The CAB will be the final authority to grant or deny the proposed route.

►Federal Air Lines announced plans to make special services for the emergency available to private flyers after the war. Maintenance shops and personnel will make emergency repairs for private planes, and the company's meteorological service and astronomical library will be offered for use by the licensed private pilot.

►President Trujillo, of the Dominican Republic, has awarded the Beneficent Order of Christopher Columbus with the grade of Grand Officer, to Juan T. Trujillo and Juan Young, Pan American's president and vice-president, respectively, in recognition of the airline's services to the country.

transatlantic service being included. The Board would review the proposed route to determine whether it is in the public interest. The Board will be the final authority to grant or deny the proposed route. The Board will be the final authority to grant or deny the proposed route.

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## CAB SCHEDULE

- May 11 Hearing on application, pending flight, submitted on Cuban Airlines matter.
- May 12 Hearing on Cuban Airlines matter.
- May 13 Hearing on Cuban Airlines matter.
- May 14 Hearing on Cuban Airlines matter.
- May 15 Hearing on Cuban Airlines matter.
- May 16 Hearing on Cuban Airlines matter.
- May 17 Hearing on Cuban Airlines matter.
- May 18 Hearing on Cuban Airlines matter.
- May 19 Hearing on Cuban Airlines matter.
- May 20 Hearing on Cuban Airlines matter.
- May 21 Hearing on Cuban Airlines matter.
- May 22 Hearing on Cuban Airlines matter.
- May 23 Hearing on Cuban Airlines matter.
- May 24 Hearing on Cuban Airlines matter.
- May 25 Hearing on Cuban Airlines matter.
- May 26 Hearing on Cuban Airlines matter.
- May 27 Hearing on Cuban Airlines matter.
- May 28 Hearing on Cuban Airlines matter.
- May 29 Hearing on Cuban Airlines matter.
- May 30 Hearing on Cuban Airlines matter.
- May 31 Hearing on Cuban Airlines matter.



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## Canada's Assumption of Port Costs On Alaskan Route Presents Problem

Effect of policy on privately owned airlines and American air transportation system studied as important move in world aviation chess game.

By ROGER WILCO

The hand of the Canadian government in the international aviation chess game was increasingly strengthened by what appeared to be a routine statement made in the House of Commons at Ottawa by C. D. Howe, minister of supply. The course of private capital in developing global air routes will most likely be influenced by the policy announced.

The Canadian minister declared his government will assume the cost of construction of permanent facilities and improvements in the air routes through the Canadian Northwest to Alaska. The United States taxpayer may have felt relieved in recovering expenditures advanced by our country in the development of airway facilities in foreign areas. Actually, however, the United States may well have been disposed of a strong bargaining factor when the shortcomings in Canada are disposition of international air routes.

**Case**—The cost of the northwest staging route alone, up to the end of 1935, is placed at about \$60,000,000, while total cost of the airway development of the airways of the Canadian Northwest is officially estimated at about \$26,500,000. The share of the United States in these construction projects was not covered in its income to have been substantial. In any event, the United States Treasury will be reimbursed for all such outlays.

Mr. Howe significantly declared, "The northwest staging route is Canadian property, owned and operated by the Canadian Government" (This airway leads from Edmonton, via Whitehorse to the Alaskan boundary). It is this strategic route which will figure prominently in any international air operation to the Orient and

points beyond. Also involved are the various landing fields and strips along the growing Mackenzie River route. The latter is a newer development but is known to have outstanding growth possibilities.

**Pace Comparatively Slow**—The price paid by Canada is a small one compared with the strong, independent stance it will thus obtain in owning unencumbered all aviation facilities within its area developed at a "cost of military exigencies." Little known is the fact that Canada has never received any Lend-Lease aid.

It is clear that the international aspirations of these United States carriers seeking to traverse the Canadian northwest will now be seriously qualified by Canadian policy. Northwest Airlines has long declared its intention for a route through this territory and beyond beyond. This and other U. S. lines have been active operators through the area for the U. S. Army. Also along for air routes through Canadian northwest territory are Western and Chicago and Southern.

**Strengthened** TCA—This latest move by the Canadian further strengthens the position of the government-owned Trans-Canada Airways in contending with Canadian Pacific Airlines, affiliate of Canadian Pacific Railway Co.

The main component of Canadian Pacific Airlines—Yukon-Southern, originally conceived and developed the Edmonton-Whitehorse route. Further, this is the path which figures prominently in that company's long-range plan for key world air routes. The Canadian Pacific parent organization has declared its intention of rapid expansion of its private world-wide steamship facilities with a similar air operation. At the same

time, TCA has expressed a keen interest in the Edmonton-Whitehorse airway as an operation it would like to incorporate as part of its present coast-to-coast system as a step leading to the international field.

**Capital Problem**—The question, therefore, may now arise: what is to be the private capital—represented by Canadian Pacific—should be allowed to expand in the international airfield, or if TCA, as the "instrument of national policy" shall be the carrier in only the Canadian day on global air routes.

Apprehensions of United States carriers in that area comprise matters somewhat but probably will take a secondary role until the Canadian issue—moral aspect is settled.

**Feasibility Questioned**—Then also, the "over-the-top" routes passing through the Canadian northwest have been attached with considerable attraction for the "outsider." They may be said to hold as the shortest path to the Orient. Actually, many observers find it extremely difficult to justify extensive operations solely on a commercial basis alone the projected area. Even within Canada, it is felt that one carrier would be adequate to handle all the economic air needs of the territory traversed.

As the routes extend beyond Canada, a case for self-maintaining commercial operation becomes even very difficult. It is this factor which supports the belief that government backing—financial and otherwise—together with national policy considerations, in the last analysis, will determine what lies where.

## Financial Reports

**Solar Manufacturing Corp.**, in a preliminary report for 1943, had net profit at \$1,828,000, equal to \$1.54 a share on 323,000 shares compared with \$1.47, 1942, or \$3.5 a share on 323,000 shares for 1943. Profit for 1944, before federal taxes, was \$1,395,000, with federal income and excess profits taxes totaling \$1,404,669.

**Am. Fuelpump Corp.** and subsidiaries reported net profit of \$34,653-935 for the fiscal year ended Nov. 30, equal to \$2.04 a share. Net profit was listed at \$624,133, after charges provisions for contingencies and reserves and other items, and excess profits taxes, and negotiation of contracts. Previous year's report showed net sales of

\$7,894,661, or \$1.20 a share. Sales of aviation products dried in the aviation forces accounted for the major part of the sales for the fiscal year, but additional passenger mail sales also were reported as substantial.

**Republic Aviation Corp.** reported net profits for 1943 of \$4,025,954, after all charges but before reorganization, equal to \$3.66 a share compared with \$1,100,061 or \$1.82 a common share in 1942. Gross sales were not given in the 1943 report, but it notes that sales of plants and parts to the Air Force were approximately \$40,000,000 in December alone.

## SEC Lists Trading In Aviation Stocks

Discloses transactions of officials in own company shares

Sale of 3,016 shares of Northeast Airlines, Inc., common stock, by Samuel J. Solomon, director and former president of the company, was reported in the company's transactions currently made public by the Securities and Exchange Commission. At the close of January, Solomon still held 10,464 shares of the common, having a present market value of more than \$180,000.

R. Dandeth Stair, who relinquished his post as director of Northeast Airlines Co., on Jan. 11, 1944, sold 478 shares of the common at a common market price, leaving a balance of 24 shares in his portfolio. H. Leroy Swann, controller, disposed of 200 common in January giving him an ownership of 148 shares at the close of the month.

**Atlas Corp. Holdings**—The SEC's report shows Atlas Corp. held 98,000 shares of Northeast Airlines common at the beginning of the year, 15 percent of the total outstanding common stock. Atlas holdings have a value of nearly \$90,000. Paul F. Collins, who succeeded Solomon as president of the company, held 32,000 shares, which have a current market value of around \$27,900. Other holdings in Northeast included James F. Fitzgerald, director, 5,500 shares; David F. Brown, vice-president, 166 shares; and Robert S. Swain, vice-president, treasurer and director, 850 shares.

Cord Ruster, president and general manager of Northwest Airline, reported gifts of 1,125 shares

of his company's common during January, leaving him an ownership at the close of the month of 550 shares.

**Republic Holdings**—Alexander N. Kemp, president of American Airlines, bought 300 shares of the company's common stock during January, leaving him an ownership at the close of the month of 500 shares. Francis Hartley, Jr., director of Colonial Airlines, purchased 200 shares of his company's common, bringing his holdings to 6,000 shares.

Several officials of Pan American Airways Corp. reported January transactions in the company's capital stock. Harold M. Halsey, vice-president, sold 144 shares, reducing his holdings to 1,000 shares. John C. Cooper, vice-president, sold 100 shares leaving him 1,842 shares while R. Preston Morris, secretary and general attorney, reduced his holdings to 1,300 shares, through sale of 100 shares. John S. Woodbridge, comptroller, sold 200 shares to close the month with an ownership of 1,100 shares. Ryan F. Young, vice-president, sold 158 shares, leaving him 1,406 shares.

Samuel F. Pryor, Jr., vice-president, filed with the commission a report in July, 1943, disclosing that on July 6, he purchased 1,269 shares of Pan American, giving him ownership of 3,268 shares at the close of that month.

**Subscription Rights**—In receiv-



NYLON TOW ROPE

Elasticity and high tensile strength have made nylon the best material yet discovered for rope to pull up and tow aircraft. Plans are being made at the AAF a glider haul near Dayton would have made thousands of pairs of women's hose.

ing reports filed with the SEC regarding flight in the subscription to the company's preferred stock, several officials of United Air Lines has disclosed their holdings of United's common on January 31. Harold C. Gray, vice-president, owned 1,000 shares; William S. Swann, director, held 7,300 shares. Other holders included Paul M. Goshen, director, 400 shares; John A. Herley, executive vice-president, 960 shares; Richard L. Dehn, vice-president, 100 shares; John J. Mitchell, director, 200 shares; and Paul G. Maffran, director, 100 shares.

Among the aircraft manufacturers, G. S. Bellows, chairman of the Board and president, disclosed his holdings of Bellows Aircraft Corp., acquired 5,900 shares of the company's common during January, leaving his holdings to 45,000 shares.

**Bell Holdings**—Lawrence D. Bell, president of Bell Aircraft Corp., disposed of 5,300 shares of common, reducing his ownership to 20,611 shares. Charles L. Beard, secretary and treasurer, sold 300 shares, leaving him 1,400 shares at the close of the month. Edwin S. Palmer, vice-president of Bendix Aviation Corp., reduced his holdings of the company's common to 900 shares through sale of 200 shares during January.

Glen L. Martin, president of Glenn L. Martin Co., gave away 5,000 shares of the company's common, leaving his holdings at the close of the month at \$27,735 value. At current market prices, Mr. Martin's gift would have a value of around \$83,000.

**Republic Activities**—John J. Daly, director of Republic Aviation Co., acquired 1,600 shares of the company's common in January, bringing his holdings to 45,614 shares. Robert L. Clarkson, director, purchased 300 shares.

Other transactions included the reduction of 150 shares of preferred A stock of Atlas Aircraft Co. by Edward T. Price, president and general manager; sale of 500 Air Associates common by Harold I. Crow, president, the sale of 2,000 shares of Bell Aircraft Associates common by Randolph C. Weller, president; purchase of 85 shares of Aviation Corp. stock by Raymond S. Pruitt, director; purchase of 100 Consolidated Vultee Aircraft Corp. common by Victor E. Gravel, director, and sale of 500 shares of Aviation Corp. common by S. M. Fairchild, director and principal stockholder.

## Competition

SEN. McCARRAN'S new aviation committee bill calls for an all-American flag line to operate all U. S. commercial airline routes to foreign territories. It is the "chosen instrument" idea again.

While careful study of the voluminous document's other provisions had not been possible as this issue of AVIATION NEWS closed, the 17 domestic airlines have rightly gone on record opposed to monopoly "in whatever form it may be proposed." S. J. Solomon, the spokesman for the Airlines Committee for U. S. Air Policy, told the press:

"We do not believe that a monopoly will best serve the interests of the U. S. in overseas aviation. The airlines believe that the number of carriers certified for operation over the routes of the world should be determined by the traffic, the public interest, the postal service, and the national security. In other words, the 17 American flag airlines comprising our committee believe firmly in the principle of regulated competition."

Although Sen. McCarran denies that his bill provides for a monopoly for any present carrier, it eliminates the driving element of competition, sets up a cumbersome bureaucratic type of organization which will be unable to adapt itself quickly to changes in requirements, and at this first glance raises serious doubts that the United States would be able to meet the much-discussed foreign competition under such an inflexible slow-moving system.

Why should we voluntarily give up our pre-war leadership in international commercial flying, cut ourselves down to the measure of our foreign neighbors, and start out again with a handicap? If America has no more faith in its ability to offer a better service than its neighbors, we have lost more in this war than we think.

## Higher Postage

SHARPER CRITICISM of the airmail service by commercial users will be the major result of higher postage rates which went into effect yesterday. Hundreds of firms which have been tolerating the one-cent air ounce gamble on expediting important letters by air instead of train will decide the results do not justify the new rate of eight cents.

While no one in Washington will do more than guess on the outcome, it seems likely that the hike instituted by Congress to raise revenues will:

(1) increase slightly the income to the Post Office Department from sale of airmail stamps, already well above the payments made by the government to the airlines, although thousands will

stop using airmail, including many service men who will use their franking privilege and deplete the government of this income.

(2) Cut the number of letters to the point where the volume will stop rising and start to level off.

(3) Result in little if any change in revenues to the airlines from the Post Office Department, which means that the airlines will carry as much postage as now—without important additions to their fleets—and still be unable to fly all the available mail even in good weather.

(4) Result in no change in foreign airmail volume, which remains at the six cents per half ounce rate, making it more economical to buy an airmail stamp for a letter from New York to Hawaii than for one to Chicago.

(5) Result in heightened public indignation at raising airmail rates without improving service, which is likely to speed the allotment to the airlines of more twin-engine Douglas's.

The crux of better airmail service for the war effort and the public, of course, is the aircraft equipment. Monthly transport production is at a new peak, and will continue to rise for some time. Consequently, some high officers in the Army are recommending more planes for the airlines.

The industry needs not eight or nine transports, but several times that number, to handle the always-rising priority and mail traffic. Furthermore, as the Pacific war steps up its tempo from the industrial East to the West Coast will rise rapidly. Because of the great distances involved, a higher proportion of business and war travelers to the West will seek air transportation.

## Big Future for Flat Tops

AN UNCOMMON last week that 38 baby flat tops had been loaned to the British, still leaving the U. S. Navy with about 50, is striking evidence of the speed at which we are turning out these movable air bases for the Pacific war.

Yet, even with the present fleet of carriers, from the small "Woolworth" type to the largest, we have not even hit our production stride. It is no secret in Washington that ultimately we shall have hundreds of carriers, plowing the Pacific in powerful concentrations or task forces, each operating independently or with other miles distant.

The maximum strategic possibilities of the aircraft carrier still have not been developed, but intense study is under way and Navy spokesmen are confident. The success of the carrier's role in our convergence on Japan from every direction probably will be far beyond anything the public realizes.

ROBERT H. WOOD

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Known for Fine Furniture  
Used in War Production  
for the Aircraft Industry*





*Above, Curtiss Commando being lifted from production cradle by hydraulic hoists. Tail will then be lowered and ship rolled to final station in hangar to be readied for engine test.*

## Before going on its own . .



*Four of these Bassick Super Heavy Duty Grooved Wheel Casters equipped with one Timken Bearing in the swivel and two in the wheel carry the entire C-46 Cargo Ship in production.*

Even before going on its own, the Timken Bearing Equipped C-46 Curtiss Commando Transport is carried down the assembly line by a production cradle mounted on Timken Bearing Equipped casters.

Timken Bearings in shop truck wheels have been saving time and cost in factories of all kinds for many years. Now, in this new form, they're helping to keep vital airplane production on the go! The Timken Roller Bearing Company, Canton 6, Ohio.

**TIMKEN**  
TRADE-MARK REG. U. S. PAT. OFF.  
**TAPERED ROLLER BEARINGS**